



Published on the 1st of each Month by

**THE INDIA RUBBER PUBLISHING CO.,**

No. 395 BROADWAY, NEW YORK.

CABLE ADDRESS: IRWORLD, NEW YORK.

**HENRY C. PEARSON,**  
EDITOR.**HAWTHORNE HILL,**  
ASSOCIATE.

Vol. 39.

MARCH 1, 1909.

No. 6.

**SUBSCRIPTIONS:** \$3.00 per year, \$1.75 for six months, postpaid, for the United States and dependencies and Mexico. To the Dominion of Canada and all other countries, \$3.50 (or equivalent funds) per year, postpaid.

**ADVERTISING:** Rates will be made known on application.

**REMITTANCES:** Should always be made by bank or draft, Postoffice or Express money orders on New York, payable to THE INDIA RUBBER PUBLISHING COMPANY. Remittances for foreign subscriptions should be sent by International Postal Order, payable as above.

**DISCONTINUANCES:** Yearly orders for subscriptions and advertising are regarded as permanent, and after the first twelve months they will be discontinued only at the request of the subscriber or advertiser. Bills are rendered promptly at the beginning of each period, and thereby our patrons have due notice of continuance.

COPYRIGHT, 1909, BY

THE INDIA RUBBER PUBLISHING CO.

Entered at New York postoffice as mail matter of the second class.

TABLE OF CONTENTS ON LAST PAGE READING MATTER.

## SECRETARY STRAUS AND COMMERCE.

**T**HE British practice in dealing with members of the Government who may retire for any reason differs from the American practice in that whereas the Britisher is placed upon half pay for the remainder of his life, assuring him a few years of leisure, if he so elects, an American cabinet minister upon leaving Washington is most likely to be taken into a great financial or business or legal organization—according as his governmental work may have demonstrated his special capacity—often at a compensation far beyond that paid by any government. We have no comment to make in this connection, other than to suggest that the American practice proves a higher capacity of those who are called to the public service than, perhaps, is appreciated by very many citizens.

At the moment we have in mind the head of the most recently created position in the Washington "cabinet"—a gentleman who, while distinguished as a scholar, a lawyer, an author, and a some time brilliant member of the country's diplomatic service, is, and has been all the while, part of an important mercantile firm. This gentleman, at least, upon laying down his official portfolio, will have no financial reasons to consider seriously any proposals which may be made to him to become connected with a

new line of money earning activity. But this latter fact is no proof of his superiority in talent to other members of the advisory board of the President now or in the past.

The fact is that it is becoming more widely recognized in America, as it should be, that there is no more honorable profession than the public service, and it attracts men of the highest talent, despite the machinations of those whose ideal of politics is that a public trust is a fat "job." The American office holder, now more than ever, is instinct with the idea, not merely of earning a personal reputation to be proud of, but of contributing to the national development which will put his country upon the highest possible plane. Not that we can point to any administration since the first year of the United States government in which such sentiments did not prevail; but to-day they are more widely diffused among the public than ever before.

The particular member of the Washington cabinet already referred to has striven incessantly while in office to bring into closer coöperation with the government the organized or concentrated commercial thought and sentiment of the country, to the end that the Congress may legislate with the fullest possible knowledge of the interests to be affected by any proposed law. Since Rome was not built in a day, it is possible that Mr. Secretary Straus's plans may not crystallize completely during his term of office, but we do not doubt that the newly organized National Council of Commerce—of which he is distinctly the father—will reach such a degree of usefulness as to prove one of the most notable monuments that has ever existed to the memory of an American statesman.

## RUBBER OVERPRODUCTION—AND "CAUCHO."

**W**E take it that a gentleman so long interested and to so large an extent in plantation companies—tea, rubber and other—as Mr. Arthur Lampard, would not have introduced in his address as chairman at the recent meeting of shareholders of the United Serdang (Sumatra) Rubber Plantations, Limited, the figures upon which he based his remarks, without first having them verified. Hence we are reproducing them here as presented by him, without looking up the authorities on the subject, particularly as upon their face they seem to agree with similar computations made from time to time, for somewhat different periods, for THE INDIA RUBBER WORLD.

The point of Mr. Lampard's remarks was that the prices realized for crude rubber do not decrease with a larger production. In other words, from the beginning of the rubber industry, the consumption of the raw material has increased at such a rate as constantly to put up prices, although every year, as a rule, has brought more rubber to market than had been handled before. We may summarize here Mr. Lampard's figures for the exports

of rubber from Pará, which he gives for the periods of five crop years, and the price figures are his, as well as those for quantities:

	Average Yearly Export.	Average Price per lb.
Five years to 1889-1890.....tons	14,612	3s. 1¼d.
Five years to 1894-1895.....	18,702	3s.
Five years to 1899-1900.....	23,524	3s. 10½d.
Five years to 1904-1905.....	30,235	4s. 2¾d.
3½ years to Dec. 31, 1908.....	35,677	4s. 8¾d.

While not certain as to how Mr. Lampard's "average price" has been arrived at, we do know that Pará rubber costs more now than formerly, and that while prices fluctuate, there is no indication, so far as the Amazon rubber situation alone is concerned, of a decline at any time to the figures current a dozen years ago, or earlier. Mr. Lampard has seen the average yearly production of Pará rubber increased 144 per cent. within a little more than a score of years, while the average price has advanced 50 per cent. or more. At this rate, what would be the ultimate result? We feel confident that, while extensive rubber resources in the Amazon watershed are yet untouched, the growing demand for this material has developed the maximum productive capacity in those regions. The reason that more rubber has not been forthcoming is that the people on the ground there have not been able to get it out.

But the Amazon region does not yield all the rubber used; probably not more than half comes from there. The difference between this region and others, however, is that whereas the *Hevea* trees, as exploited in South America, yield rubber year after year, most other species, under the methods of treatment applied to them, yield rubber only once, leaving the forests in time entirely without rubber. In the end, therefore, if the world's dependence for rubber were solely upon forest produce, there would be left only the *Hevea* trees, with a possible price for the product which it would not be comfortable to contemplate.

It happens, however, that the production of rubber on plantations has been undertaken with such success as to insure possibly a sufficient supply even if all the forest rubber reserves should become exhausted. Mr. Lampard's own company have brought into existence a planted rubber forest described as "a solid block of 11¼ square miles," on which are nearly a million rubber trees; not such a forest as one finds in South America, where five rubber trees to the acre are a good average. This Sumatra plantation is typical of many hundreds, the progress of which has led to the question whether there is not danger of overproduction in sight.

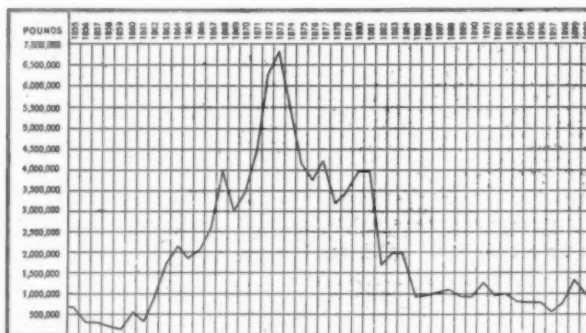
Mr. Lampard does not fear overproduction. He has seen more rubber coming to market every year, and at the same time prices have gone up. There is no reason to suppose that the limit of rubber consumption has been reached; on the contrary new uses for rubber are developed all the while. On the other hand, while more rubber does come forward, the limits of forest production are

discernible. The Amazon country lacks facilities for a larger output, and in other regions the rubber sources are becoming exhausted. For these various reasons, Mr. Lampard feels that when all the rubber trees now planted have become tappable there still will not be too much rubber coming to market to render its production unprofitable.

While on the subject of Amazon rubber, it may be pointed out that not nearly all the rubber coming down that stream is "Pará," or *Hevea* rubber. There exist in the forests of northern Brazil and parts of Bolivia and Peru trees which yield plentifully a desirable rubber marketed under the Spanish term "Caucho." It is understood to be derived almost wholly by the destruction of the trees, so that, while large quantities are now coming to market, the mere largeness of the trade in caucho only points to its earlier disappearance. This table shows the total quantity (in kilograms) of rubber exported through Pará during the past ten calendar years, and also the extent to which caucho figured in the shipments:

YEARS.	Rubber.	Caucho.	Total.
1899.....	22,894,538	2,535,426	25,430,009
1900.....	23,997,063	2,751,600	26,748,663
1901.....	26,326,609	3,963,889	30,290,498
1902.....	25,359,403	3,190,377	28,549,780
1903.....	26,884,114	4,210,828	31,094,942
1904.....	26,200,180	4,443,956	30,644,136
1905.....	27,905,982	6,010,906	33,916,888
1906.....	28,436,733	6,331,022	34,767,755
1907.....	30,358,712	7,155,440	37,514,152
1908.....	30,631,737	7,431,614	38,063,351

It will be seen that while the total exports of rubber from Pará have increased 50 per cent. in ten years, the exports other than caucho have increased less than 34 per cent. These figures are significant, in view of the fact that only *Hevea* rubber remains to be considered seriously among forest rubber products by planters outlining their policy for the future. Formerly no caucho came through Pará. It was discovered extensively in Colombia, which used to ship as much as 7,000,000 pounds in a year, but finally the export dropped to almost nothing—exhaustion. The caucho gatherers shifted to new fields and to-day are exerting themselves to the utmost to kill all the trees in the Amazon valley yielding this grade of rubber. And caucho trees, once killed, stay dead.



RISE AND DECLINE OF RUBBER PRODUCTION IN COLOMBIA.

[The chart illustrates what is customary in other regions than where rubber is obtained by systematic periodical tapping.]

### RETALIATORY PATENT BILLS.

RECENT legislation in England in relation to patents is having an effect elsewhere. For instance, Representative Frank D. Currier has introduced a bill in the United States congress (H. R. 27,534) to amend the patent laws so as to provide "That whenever a patent is issued to any citizen or subject of a foreign country it shall be subject with respect to its manufacture in this country to all the limitations, conditions, and restrictions that are imposed by the country of said citizen or subject upon the manufacture in that country of patents issued therein to citizens of the United States: *Provided further*, That this act shall not affect any patent heretofore granted."

*The Times* (London) reports that the French government proposes to amend the law of July 5, 1844, which enacts that failure to exercise patent rights shall entail lapse of patent, in the following sense: Patent rights shall be held to lapse in the event of failure on the part of the holder either to exercise his rights in France or in the French colonies for a period of three years after applying for his certificate, or to resume exercise after a similar interval, or secondly, in the event of only partial exercise of the patent in French territory. In the second event the patent courts will be invested with discretionary powers to call upon the holder of the patent to show cause why he should not exercise his rights in French territory "in an adequate degree."

Apropos of an editorial on "Evading British Patent Law" in the last INDIA RUBBER WORLD, it was interesting to find in the simultaneous issue of *Electrical World* (New York), in an article on this subject by an English barrister, the suggestion:

"There are divers courses open to the inventor foreign to England which will enable him to avoid having to set up a factory on British soil. In the first place, he may manufacture the parts of a complicated machine, and have them assembled in England. The point has not yet been decided, but the English courts may hold that this constitutes manufacture."

WE REGRET TO NOTE that a former friend is circularizing the rubber trade under the name India Rubber Publishing Co. He or his company have absolutely no connection with THE INDIA RUBBER WORLD, or The India Rubber Publishing Co.

IF THE DOCTRINE OF "LESE MAJESTY" obtained in England we wonder what would have happened to the editor of *The Standard* (London) when, in the issue of January 30, that paper, in dealing with Congo rubber, quoted from a report of "his Botanic Majesty's consul at Boma."

THE LATEST EVIDENCE THAT "PLANTATION" is good rubber is found in the statement by an eminent British manufacturer that it is being counterfeited. He claims to have had offers of several lots of so-called plantation rubber "very little of which has ever come from any plantation." We may expect in time to see a demand in the trade for experts who can determine "plantation" from "wild" rubber, unless the planters should succeed generally in producing better grades than can be obtained from native sources.

RETURNS FROM TEN RUBBER PLANTATION COMPANIES in Ceylon and Malaya, taken at random, as will be seen on another page, show a total production of 209 tons in 1906; 482 tons in 1907, and 873 tons in 1908. We take it that these figures indicate fairly well the rate of increase of production on well developed rubber plantations, and they point to the possibilities to be considered when plantations now tapping thousands of trees come to deal with millions which are growing thriftily but have not yet reached a tappable size.

THE WORLD'S TOBACCO CROP in 1907 amounted almost to 3,000,000,000 pounds. This is an enormous weight, and the money value was also great. The subject is of interest in connection with rubber culture in that the introduction of tobacco growing into so many countries other than its native habitat has been so successful from a cultural standpoint, and likewise so profitable. There would seem to be no natural reason why tobacco should prove superior in these respects to rubber yielding species.

### ENZYMES AND THE COLOR OF RUBBER.

A RECENT visitor to the United States, where he stayed for a brief week only, summoned by cable for consolation, was Dr. David Spence, who has long been connected with the Liverpool Society of Tropical Research. Dr. Spence has made a reputation for certain discoveries of a specific for the cure for the sleeping sickness, a disease that is as fatal in Africa, particularly in the rubber gathering regions, as yellow fever has ever been in tropical America. It is in connection with his investigations of crude rubber, however, and particularly of the latex of rubber producing trees, that the trade knows him best. One of his most interesting and valuable discoveries relates to the cause for the dark color of Pará and other rubbers. This is due to an active oxidizing enzyme. The discoverer's own description is here added:

"These enzymes are probably, as I learned, present in the protein of the latex of all rubber producing plants, and so act upon the insoluble portion of the protein that it is converted into colored products, which impart the dark color to the rubber. In my original work I determined that the temperature at which the oxidizing enzymes are destroyed lies very close to the point where in general other similar enzymes perish. To obtain rubber only slightly darkened, it seems, at first glance, only necessary to destroy the active enzymes in the latex or the rubber by heating above the sterilizing temperature, 75 deg. C. But this method of destroying the enzymes by means of heat is not so easily accomplished in practice, and this fact led me to the belief that in the latex and in the rubber there was a heat resisting agent, zymogen, which slowly changed into active enzymes.

"I found, for example, that freshly cut pieces of Pará rubber, washed thoroughly with water for more than an hour to remove the strongly colored soluble matters, gradually darkened and after exposure to the air finally became entirely black. Potassium cyanide, a mercury chloride solution, or acetic acid, failed to prevent the dark coloration, or at least after the above solutions were completely removed by washing. I made many experiments with the latex of *Funtumia elastica*, but found without exception that heating the latex or the rubber prepared therefrom even to 100° C. for half an hour was insufficient to alter the tendency to turn dark. It is known that certain natives on the West African coast obtain rubber from the latex of *Funtumia elastica* by heating it with water until the separating rubber particles coalesce into balls. Nevertheless, I have seen no sort of rubber prepared in this manner in which the effect of the active oxydase enzyme was not plainly observable.

"Since the oxidizing enzyme is very stable towards heat, the best method for handling the latex to secure only faintly colored rubber appears to be the one presented previously by me and now repeated here. By this method the enzyme itself is to be removed as completely as possible before coagulation. The latex is diluted with water before the coagulation and the agglomerating rubber particles washed well (this applies at least to *Funtumia elastica*) in order to remove the oxidizing enzyme as well as other foreign matter from the rubber. In this manner a snow white rubber is obtained.

"Yet to prevent as much as possible the baneful effects when



using the boiling process a substance having a noxious action against the enzyme but a harmless one toward rubber could be utilized. Many experiments to discover a body which would render innocuous the oxidizing enzyme have been fruitless. So, from a practical standpoint, the destruction of the oxidizing enzyme is not as simple a matter. There are a number of difficulties to overcome, and, only when the nature and properties of the enzyme are more closely investigated, may we hope to ascertain a practical method for the removal of this substance."

#### EXPERT OPINION ON PLANTATION RUBBER.

THE very interesting comments on plantation rubber by Herr Prinzhorn, a prominent German manufacturer, reproduced in the last INDIA RUBBER WORLD (page 183) are fittingly supplemented by the expressions attributed to a British manufacturer by the *Ceylon Observer*. The gentleman referred to is Mr. Patrick Millar Matthew, chairman and managing director of The Victoria Rubber Co., Limited, of Leith, Scotland, who recently made an extended visit to the rubber planting districts of the Far East. We quote from an editorial in the Ceylon newspaper:

"Though we did not personally meet him, we hear that while in Colombo, Mr. Matthew—who had seen some fine rubber in Malaya, including one 15-year-old tree which had given 50 pounds dry rubber in one year—gave it as his opinion that the ultimate killing out of the wild rubber industry by the 'plantation' was regarded by him as a certainty; and that it was only a question of time, himself thinking it would probably not be consummated for another twenty-five years. No wonder, therefore, that Continental as well as British users of rubber on a large scale are coming out to make certain for themselves the extent (in acreage) and resources (in capacity for big yields) of plantation rubber in the East. Mr. Matthew, we hear, has interests in plantations in Johore and has recently made a tour of estates in Malay Peninsula.

"He is very satisfied in every way with the prospects of the plantation industry and says that the rubber can be used for any purposes, and in some trials made for the sake of comparison the plantation product gave better results than the Brazil rubber. From plantation rubber he has turned out splendid 'thread rubber,' which is a very high test. As regards the age of the trees, and its influence on the quality of the rubber, he is of opinion, from his experience, that after, say, 8 years, the rubber is of full strength, and there is little difference between the rubbers of trees 8, 12 and 15 years of age.

"Mr. Matthew is also of opinion that all rubber should be shipped in the form of crepe, and does not favor biscuit, sheet, etc. He also advises—and is, we hear, very particular upon this—that every estate should mark its rubber with its stamp. This can easily be done by the creping machine. The reason is that there are in England certain small firms who are offering to manufacturers and others lots of 'plantation crepe rubber,' very little of which has ever come from any plantation. A small percentage of it is plantation rubber, and this is blended and mixed with African and other low grade rubbers, washed and creped, and then offered as the genuine article from the East, at a handsome profit to the blenders. Mr. Matthew's firm has had repeated offerings of this sort, and he thinks it would be of great service to the plantation industry if all rubber were marked with the estate mark."

Following the publication of the above comments attributed to Mr. Matthew, he wrote to *India-Rubber Journal* (London) to the effect that he had not been quoted with accuracy. He said, among other things: "I am aware that it is the view of some experts that plantation rubber 'can be used for any purpose,' and that 'splendid thread rubber' can be made from it, but this is not my opinion. There is no doubt that, if properly treated, plantation rubber can be successfully employed for most purposes

for which wild Pará is now in use, and possibly in time to come it may be used in the manufacture of thread, which is probably the highest test of quality to which it can be subjected."

Another British manufacturer who lately has visited the Far East is Mr. Arthur Stanley Morrison, a director in the Leyland and Birmingham Rubber Co., Limited, and has long been interested in the rubber manufacture in a practical way. Mr. Morrison is a director in at least one planting company, as also is one of his fellow directors in Leyland and Birmingham.

A pertinent comment in a London financial paper is that, more than questions of quality and price, the introduction of plantation rubber in many factories has been retarded by the small total stocks available thus far, and the irregularity of arrivals. With the constant increase of production, however, these drawbacks seem likely soon to disappear.

#### RUBBER MANUFACTURERS IN PLANTING COMPANIES.

Colonel R. K. Birley, C. B., V. D., chairman of Charles Macintosh & Co., Limited, chairman of Beaufort Borneo Rubber Co., Limited.

P. A. Birley, of Charles Macintosh & Co., Limited, director in Manchester North Borneo Rubber Co., Limited.

F. H. Smith, of Charles Macintosh & Co., Limited, director in Manchester North Borneo Rubber Co., Limited.

James E. Baxter, chairman of the Leyland and Birmingham Rubber Co., Limited, director in the Manchester North Borneo Rubber Co., Limited.

Arthur S. Morrison, Leyland and Birmingham Rubber Co., Limited, director in Manchester North Borneo Rubber Co., Limited.

C. E. Ireland Blythe, of the North British Rubber Co., Limited, director in the British Sumatra Rubber Co., Limited.

Patrick M. Matthew, chairman of Victoria Rubber Co., Limited, director Tebrau (Johore) Rubber Syndicate, Limited, Malaya.

W. W. Maclellan, of George Maclellan & Co., Limited, director of British Borneo Pará Rubber Co., Limited; Jugra Land and Rubber Estate Co., Limited; and Shelford Rubber Estate Co., Limited—the latter two in Federated Malay States.

Peter Maclellan, of George Maclellan & Co., Limited, director in Trolak Plantations, Limited, Federated Malay States.

#### In Exploitation Rather Than Planting Companies.

Arthur du Cros, of Dunlop Rubber Co., director in Liberian Rubber Corporation, Limited, West Africa.

James O. Callender, of Callender's Cable and Construction Co., director in De Mello Brazilian Rubber Co., Limited, Brazil.

#### THE NEXT RUBBER EXHIBITION.

THE proposal to hold an international rubber exhibition in London in 1910 has been met with the suggestion in various quarters that this date does not allow of the lapse of sufficient time following the Olympia show of last September. Herr Adolf Prinzhorn, of the German rubber industry, and who is now in the Far East, has expressed the opinion over there that a rubber show in London next year would be interfered with by the international exhibition to be held in Brussels during the same year. This view is shared by the Ceylon newspapers, which express the opinion that it is doubtful if the planters, commercial bodies, and governments of Ceylon and Malaya would support a distinctively rubber exhibition next year as liberally as in 1908. Walther Freudenberg, a merchant of Bremen, some time resident in Colombo, has published a suggestion that the attendance at the Brussels exhibition will be large, and probably embrace everybody on the Continent interested in rubber. It is understood that efforts will be made at Brussels to have the agricultural department up to date, and the next international agricultural congress will be held at Brussels at the same time as the exhibition.





GUTTA-PERCHA PLANTS IN A NURSERY.

## Gutta-Percha Planting in Java.

THE importance, to the world of commerce, of the work that is being done in Java in cultivating gutta-percha can hardly be overestimated. Indeed, until the writer personally met Dr. W. R. Tromp de Haas, the superintendent of the government gutta plantations in Java, and went over the whole subject step by step, he had but a vague idea of the subject.

To begin with, only three of the many gutta-producing trees produce gum fit for cable insulation, and at the same time adapted for profitable propagation. Botanically, they are all species of the genus *Palaquium*, being respectively *P. oblongifolium*, *P. Bornéense*, and *P. gutta*. (This genus, by the way, is better known to English readers as *Dichopsis*.) The species referred to grow chiefly in the Dutch possessions in Java, Sumatra, and Borneo. The natives, whom it is impossible to control, always destroy the tree when extracting the gum. Hence the supply from wild sources is sure to cease ere long. Then, too, as the tree matures slowly, not reaching a tapable size under fifteen years, planters are not interested in it.

As far back as 1856 a small plantation of gutta-percha trees was started in Banjoemas, Java, but it was not until 1885 that Professor Treub really laid the foundation for work on a large scale by starting the plantation at Tjipetir, on the same island. Then, in 1900, when it was decided to do the work on a large scale, there was at hand an abundance of seed. As the seed perish within four weeks after maturity, and as the bats carry off much of the fruit, which they consume on the wing, the difficulties in getting sufficient fresh seed are obvious.

The time will come, however, when every mile of the 247,888 miles or more, of submarine cable now existing, must be renewed, to say nothing of the need for new cable lines. And in view of this the Dutch government took hold of the problem in a manner that assures its solution.

The great plantation at Tjipetir is situated in a healthy country in the uplands not far from Buitenzorg. The rainfall is abundant, the soil good, and cheap labor plentiful. The seeds are first planted in nurseries. When about a year old they are taken up, the tap root and young stem is shortened and they are planted about 4 feet apart. After the third year the plants have closed up so that they need thinning out.

Almost from the first Dr. Tromp de Haas planned to make use of the leaf and the bark of the plants that were destroyed in thinning. He even went further and extracted gutta from the fallen leaves that littered the ground in the older plantings. All of this extraction is by chemical means, and the product is not the green gutta once on the market, but a high-grade gutta as good as the best. This will be seen to be practical when it is remembered that the bark contains 5 per cent. of gutta-percha (made up of 85 per cent. gutta and 15 per cent. resinous matter) and fresh leaves contain 10 per cent. of gutta-percha (made up of 90 per cent. gutta and 10 per cent. resinous matter). The yield from fallen leaves is smaller, but worth considering.

In this manner the plantation begins to produce when the trees are three years old. By pruning and thinning they have got for the third year about 890 kilograms [=1958 pounds of fresh



GUTTA-PERCHA PLANTS (4½ YEARS OLD) AT PANJINDANGAN.

leaf to the acre, and the year following 2,744 kilos [=6,037 pounds] of fresh leaf. From the older trees they found that the fallen leaves amounted to about 25 kilos [=55 pounds] a tree. These figures are of course only approximate, as the experiments are still going on, but they are successful and show



DR. W. R. TROMP DE HAAS.

[Director of the government gutta-percha estate, Tjipetir, Java.]

wonderful skill, forethought, and thoroughness. Beyond all this the a l m o n d shaped seed has been found to produce a vegetable fat with a high melting point which can be used in the arts. It is planned that the real tapping of trees shall begin in 1915. The planting now embraces 2,240 acres, and the estimate is made that it will produce 11 kilos of dry gutta-percha per acre, or a total of 26,840 kilos [= 59,048 pounds] a year.

The amount of gutta-percha which has gone into commercial use during the last half century is evidence that a tremendous number of trees yielding this gum existed at the time when the material first came to the notice of manufacturers, but just as the largest bank account will some time disappear if constantly drawn upon without any additions being made to it, the native gutta-percha resources in the regions which formerly supplied the world's principal needs for this material have become well nigh exhausted. It is almost impossible now to find a native specimen of the best gutta-percha species. The practicability from a scientific standpoint of producing gutta-percha under cultivation having been established, the owners of private capital naturally hesitated to undertake planting, on account of the supposed length of time which would be requisite for returns, since the gutta-percha trees felled by the collectors were commonly supposed to be a century old.

A well established government, however, such as that in the Dutch colonies, accustomed to making investments for the future as well as for the present, and particularly investments not expected to yield direct dividends, can well afford to finance such an enterprise as planting gutta-percha, regardless of the length of time which must elapse before the trees become productive. There is all the more reason for the Dutch government to

undertake this work in the fact that gutta-percha trees occur naturally over so small an area, and that embraced principally in the Dutch possessions. There is now being laid a cable, insulated with gutta-percha, between Germany and Brazil—to be one of the longest cables in the world—and there is no indication that the age of cable building is passing. Ultimately, at the present rate of consumption, there will be no forest gutta-percha, and all the activity of the Dutch government and such private enterprise as it may inspire can hardly lead to overproduction of this important material when the world's need for it becomes acute.

It is true that gutta-percha trees under cultivation may mature at an earlier age than where they are scattered in forests, just as has proved true of *Hevea* rubber in Ceylon and Malaya. The fact is also important that science has demonstrated the possibility of obtaining gutta-percha from young trees. The most important substitute for gutta-percha yet known is balata, of which important native resources still exist, and in connection with which some facts are given in a brief article which follows.

#### MORE BALATA FROM BRITISH GUIANA.

THE collection of balata in British Guiana is coming under a somewhat changed control. The Balata and Rubber Corporation, Limited, registered in London December 2, 1908, with an authorized capital of £160,000 [= \$778,640] to acquire lands in British Guiana and elsewhere, and to deal in balata and india-rubber, have taken over the concessions of The British Guiana Rubber Corporation, Limited, incorporated in 1906, and various other balata concessions in the colony. Colonel Link, who was representative in British Guiana of the older company, has been appointed general manager of the new. The collection of balata in the colony has been increasing steadily of late, and doubtless the export will become still larger under the more systematic management, by a large controlling company, of a business which hitherto has been carried on always under numerous difficulties.

The exports for the calendar year 1908 was 1,124,955 pounds, compared to 991,280 pounds for the previous year. The exports, with values, for five fiscal years (to March 31) have been:

	Pounds.	Value.
In 1903-'04.....	531,390	£216,895
In 1904-'05.....	501,509	182,607
In 1905-'06.....	550,691	193,495
In 1906-'07.....	634,242	240,510
In 1907-'08.....	973,269	368,538



CULTIVATED GUTTA-PERCHA TREES AT TJIPETIR.  
[*Palaquium oblongifolium*; age 22½ years.]

## The British as Pioneers in Rubber.

[At the latest regular dinner of the Victorian Club, the leading British club of New England, given on the evening of February 11, at the house of the City Club, Boston, the guest of honor was Mr. Henry C. Pearson, the Editor of THE INDIA RUBBER WORLD, who delivered an illustrated lecture on "The Briton in India-rubber, as Planter and Manufacturer." The paragraphs which follow formed the introduction to the further remarks which the speaker made, descriptive of the views shown, mainly of rubber plantation scenes in Ceylon and British Malaya.]

**W**HATEVER may be the claims of other nations, it is an historic fact that the beginnings of india-rubber manufacture were British, and they are not so far back but what they may be easily discovered and valued.

One hundred years ago the industrial world possessed steel, copper, lead, the precious metals, cotton, silk, and wool—in fact, all of the great staples in use to-day with the exception of india-rubber. Nor at that time was there the slightest fore-knowledge that a new product combining most of their valuable qualities, with added and unthought of values of its own, was one day to be discovered. Indeed, the imagination of chemist, physicist or manufacturer could hardly forecast a semi-metal of vegetable origin, organic and yet inorganic, that could be made as hard as iron or soft as the surface of an infant's cheek, plastic, resilient, waterproof, unaffected by acids or alkalis, a product indifferent to cold or heat, able to take on any color, shape or texture, and in the end to become an integral part of every great industry, an adjunct to every profession, and a necessity to almost every individual in the civilized world. One hundred years ago this was not even a dream.

To be sure Priestly, a worthy Briton, had shown samples of a curious gum that came from tropical trees. Some enterprising stationer had sold small cubes of it for erasing pencil marks, which Englishmen named "indian rubbers." Later the material came to be called "india-rubber," a name that the whole world has adopted and than which there is none better.

Prior to this, inventive genius had in a misty way sought to make use of the gum. Indeed, as far back as 1627 appears in old-fashioned English a patent by John Wolfen for waterproofing skins and fabrics by a secret process.

It was not until about 1819, however, that the real beginning was made. At that time there lived in England a distinguished chemist, Charles Macintosh, F. R. S., who had been wonderfully successful in adding to the wealth of his native land by practical discoveries in connection with every day industries. The list of his accomplishments in connection with iron and steel, colors, and particularly the treatment of textiles, is indeed a long one.

Just one item may be permitted here as showing how great was his success. He produced a process for the bleaching of cotton and linen which was revolutionary and which his biographer, writing in 1846, estimated had saved to British manufacturers more than £400,000,000 sterling, or \$2,000,000,000.

His particular faculty seemed to be a thrifty desire to utilize waste products. He therefore seized upon the waste from the gas works, produced coal tar naphtha, and suggested its use as a solvent for india-rubber. Further than this, in 1822 he patented a process for manufacturing a waterproof material consisting of two fabrics with a layer of rubber between them. The result is now known as macintosh (or mackintosh) coats, and are used by the million the world over to-day. A Scotchman by birth, he established himself in Glasgow, but later associating himself with the Birleys, a wealthy and progressive family in Manchester, laid the foundations for the great house of Charles Macintosh & Co., Limited, the pioneers of the world in rubber manufacture, and to-day one of the great and successful companies.

At the same time there entered into the field Thomas Hancock, pioneer of the type of practical experimenter by whom the great problems of the rubber business have been solved, rather than by trained chemist. He, to be sure, began his experiments in 1819, but it was not until 1820 that he took out his first patent, and it was sometime before he really produced merchantable articles. Just as Macintosh discovered a basic process for making double textured goods, so he discovered processes and invented machines for the treatment of the gum on a large scale, and in time he and Macintosh came together in an arrangement for joint manufacture.

In spite of the fact that vulcanization was not dreamed of then, and that india-rubber stiffened and cracked under cold and often got very sticky in hot weather, a really large business was built up. Waterproof clothing, life preservers, pontoons and elastic goods, cloth covered, were produced and the business was most profitable.

It was not until 1842, however, that vulcanization suggested itself. A Mr. Brockedon, who got Hancock to make rubber stoppers for him, was continually complaining that extreme cold rendered them as hard as stone, and the inventor was trying in every way to overcome this. With this in mind you can imagine with what interest he received a small piece of india-rubber from the hands of an American promoter who had a secret process to sell of which he would say very little. In his examination of this sample, Hancock detected the odor of sulphur. He at once began experimenting with that substance in connection with india-rubber, and after a time, by melting sulphur and immersing rubber in it until it had absorbed a certain amount of that metal, and then baking it, he effected what he called a "change." At this juncture Brockedon came forward and called this process "vulcanization"—another name that the world has accepted.

To take our eyes from Great Britain a moment and look over the state of the art in the rest of the world is most informing. Charles Goodyear, in the United States, an experimenter like Hancock, had after innumerable trials, and taking advantage of Hayward's suggestion for the use of sulphur, found that india-rubber and sulphur baked, or vulcanized, formed a wonderful and new material. Van Guens, in Holland, and Lüdersdorf, in Germany, also experimenters, were apparently very near the same sort of discoveries; France had trained chemists at work. In other words, the thought of individuals dealing with india-rubber in various parts of the world had reached nearly the same point, and had any three of the gentlemen failed, it is probable that a fourth would have succeeded.

I would not for a moment minimize the value of suggestion. The fact that Goodyear saw in Hayward's idea something that he, with a broader experience and more intimate knowledge of rubber could amplify and make more successful, does not in the slightest dim his glory as the American inventor of the process of vulcanization. Nor does the frank statement of Thomas Hancock that the sulphur suggestion came to him from an unknown American in any way minimize the value of his work.

No one accomplishes anything or gets anywhere without a great following of suggesters who have contributed nothing but misty ideas which they alone value, and because of which they try to share the glory of those who really do the work. It may be heterodox, but I have always believed that the primal sin of Satan was that he laid claim to the creation of the material universe through suggestion.

With sulphur vulcanization an accomplished fact, and a wonderful elastic semi-metal in the place of a valuable yet rather dis-



appointing vegetable product, the arts and industries found thousands of undreamed of uses for the new product. New factories started, old ones enlarged, markets expanded until to-day such large industrial organizations as Charles Macintosh & Co., William Warne & Co., The North British Rubber Co., and scores of others attest the greatness of the British rubber industry.

For a long time the British rubber manufacturers were content to depend upon the wild sources of rubber for their constantly increasing supplies. With their great merchant marine, rubber for the manufacturers of the world was brought to London and Liverpool, and they were the world's brokers in the commodity. Their operations in the Amazonian port, where most of the rubber and the best came from, were very large. There came a time, however, when Germany, grown strong commercially, fought for supremacy in that field, established banks, subsidized steamship lines, and sent trained men who explored every river and set back to headquarters voluminous reports on everything pertaining to rubber. No doubt both of these great powers often considered the outcome could they but control the vast forest areas from which the rubber came.

It was just here, however, that the commercial imagination of the Englishmen, trained to grapple with great world problems and tropical enterprises, shone forth most brilliantly. It was rubber they wanted, not more territory, and with a change of base that was masterly they shifted from the Amazon to their own great possessions in the Far East. Here they established a base with soil and climate just right. With the cheapest and most abundant labor at their doors, they chose a position apparently impregnable, where the battle of supremacy in crude rubber is to be fought and won.

To-day there flourish in these regions more "Pará" rubber trees than are tapped to supply the annual Amazonian crop. Already, although the plantations are young, they produce one-seventeenth as much as come down the mighty South American river. Five or ten years from now, with these great plantations in full bearing, together with others being installed, it would seem that the fine Pará rubber of the world's market will be grown on British soil, and be the result of British progressiveness and forethought.

\* \* \*

MR. ELSTON E. WADBROOK, the president of the Victorian Club, who occupied the chair, proved himself a rarely happy and capable presiding officer. At the conclusion of the lecture he briefly sketched rubber trade conditions the world over, and added some interesting personal experiences in the Amazon country, where he spent several years. Mr. Wadbrook, by the way, is engaged in an important way in the crude rubber trade.

#### RUBBER IN HUNTING CLOTHING.

THE making of hunting clothing in the United States has become a very important line of business, to which some large houses are now devoted exclusively. Not only is the home demand for these goods on the increase, but American hunting goods are now exported to Mexico, Canada, Japan, Great Britain, Holland, South Africa and elsewhere. An extensive concern in this line is the Upthegrove Sporting Goods Co. (Valparaiso, Indiana), whose president, Mr. Jesse E. Foust, in commenting on waterproof clothing in general, had the following to say [according to *The Sporting Goods Dealer*]:

"Some concerns claim to make a waterproof material by taking any kind of light cloth and subjecting it to a patent coating process, but it can't be done. It is impossible to treat cloth in that manner and make it rain proof. No coat will be waterproof that does not have rubber in it. No other material can be used to take the place of the rubber, and to be waterproof the material must have the proper weight and thickness. To get all this without producing a stiff, unwieldy material is not easy, but we succeeded with our rubber cemented cloth."

#### R. M. HOWISON.

THERE are many Americans in London, and many American firms represented both by Americans and Englishmen. It is not often, however, that one man represents half a dozen good concerns, five of which are rubber manufacturers. The firm of Howison & Co., Limited, which is very largely R. M. Howison, and is particularly in evidence at London's industrial exhibitions, represent in rubber the Pennsylvania Rubber Co., Davol Rubber Co., Seamless Rubber Co., Faultless Rubber Co., and Morgan & Wright.

The man who has rounded up these concerns and who

markets their goods so successfully was born in Darlington, England, the son of a physician of the old school. He believed in laying the foundation of a career by hard work poorly paid, and so put his boy at an early age as apprentice to a firm of merchants in Dundee, Scotland, at a salary of \$50 a year. The hours were long and the work hard, but young Howison was ambitious and the first day of his fourth year the firm complimented



R. M. HOWISON.

him, took a year off his time, and made him a junior clerk at \$200 a year. Hard work and overtraining, however, had affected the youngster's health, and he was ordered on a voyage to Australia, the firm paying for his passage. One hundred and four days on a sailing vessel landed him in Melbourne in perfect health. He found a position at once in a metal importer and government contractor's office in Sydney and a month later was promoted to the business management of their works. A little over a year later he was made assistant paymaster on a large railroad construction contract.

When this contract was finished he decided to go back to England and started in London in Mincing lane as market clerk, handling coffee, sugar, spices, and rubber. Then he secured for his firm the London agency for Messrs. Sgal & Co. Two years later he returned to Sydney, built up a business in engineers' supplies which he sold out, and returned to Liverpool as manager for Sgal & Co. In 1895 Mr. Howison came to the United States and opened an office on Kilby street, Boston, representing Sgal & Co. in the sale of crude rubber. In 1897 he took a position as purchaser of rubber for the Hartford Rubber Works Co. At the end of that year he was appointed managing director of the Single Tube Tire Co., London, which controlled for Europe the bicycle tire interests of the Hartford Rubber Works Co., The B. F. Goodrich Co., and the Boston Woven Hose and Rubber Co.

The Single Tube Tire Co. eventually came into the possession of The B. F. Goodrich Co., with Mr. Howison as European manager for that and all of their goods. In 1901 Mr. Howison started in business for himself as wholesale merchant and importer of American goods. Since then his business has largely increased. He has visited the United States 16 times, and he is perhaps as well known as any general marketer of rubber goods.

## The India-Rubber Trade in Great Britain.

*By Our Regular Correspondent.*

NOW that a list of the names of those comprising this committee has been published, it would have been interesting to have had fuller details as to the terms of reference—to use a parliamentary expression. To say that the object of the committee is to advise on standardizing chemical and mechanical

### INTERNATIONAL TESTING COMMITTEE.

tests used in the rubber trade is not sufficiently illuminating as to the full scope of the work to be undertaken. Presumably, however, one object at any rate to be achieved is to agree upon the exact lines of procedure to be followed in the case of certain ordinary tests, such as the determination of resins, substitutes, and sulphur in rubber goods. To this extent the committee will be following on established lines work of this sort having been undertaken in connection with agricultural and other products. Previously, however, to the best of my knowledge, the members of such advisory committees have all been trained chemists, whereas in this case it appears that any manufacturer who wishes to join the committee will have facilities afforded for doing so. This is stated to be the case as far as British manufacturers are concerned, and presumably it applies also to those of other countries whose chemists are taking part. The advisory committee list of the Olympia Rubber Exhibition rapidly assumed an imposing length, though only a few of the names were prominent in any way with the proceedings. There seems likewise a possibility that owing to the new brotherhood which has been fostered by plantation interest we shall see the new International Committee considerably swollen before any real work commences. Of course the manufacturers can give valuable information to the various secretaries and botanists on the committee as to how rubber goods are constituted, especially as they are all more or less familiar with the adulterants used by their competitors. Otherwise I don't quite see where the manufacturers come in—that is, those who have not had any chemical training. One of the main difficulties which arises in my mind as to this standardizing of chemical tests is the fact that there are practically no standards of rubber now that the admiralty authorities have substituted the term "best rubber" for Pará rubber. In the case of food products it is different, and definite standards can be referred to. In rubber goods there may be certain variations which may affect the accuracy of any particular standardized test. If there is not this point to fall back upon an unscrupulous manufacturer could engage a chemist to show him how to render the test inefficient. To take an instance from food products, a certain quite reliable method had been worked out for determining the amount of coconut oil put into butter and lard by nefarious traders. After the latter had got into trouble they engaged eminent scientific help, with the result that they destroyed the value of the test in the ordinary analyst's hands by a very slight addition of another foreign matter. This case is an important one, and is attracting considerable attention at the present time; it is mentioned here merely as an indication of what might happen in certain cases of rubber analysis, and I have no wish to be drawn into any discussion on the case itself. Another point that seems worthy of reference is the language question. This always complicates the work of an international committee. Judging from the list of names before me it does not appear that any one language would be understood by all—supposing that a general meeting were held, an eventuality which will probably not be realized. Probably there is one, if not more, on the committee who can speak English, French, German, and Dutch, and his services should be in general request. With regard to the personnel I am glad to see that

Dr. Spence, who is now located at University College, Bristol, can find time to give his services. I note the absence of the name of that prolific writer on rubber, Dr. Ditmar, of Austria. With regard to Germany, the list includes the name of Dr. C. W. Thiel, of Hamburg, who I imagine will not be very widely known, as up to the present he has maintained a strict reserve about getting into print. In the course of his experience as chemist at Messrs. F. Reddaway & Co., Limited, Manchester, the Harburg-Vienna company, and the Calmon Works, at Hamburg, he must have accumulated matter with regard to analysis likely to prove of much service, and now that he is a free lance he will doubtless be more communicative.

THE recent editorial in THE INDIA RUBBER WORLD as to the correct classification of jelutong or pontianak is much to the point. It certainly seems undesirable that a substance worth 2 pence per pound and imported in large quantities

### JELUTONG.

should not go to swell the statistics of raw imported by any particular country. In my opinion it is at the best only a bastard rubber, which is a useful designation for this and one or two somewhat similar low-grade substances. In a recent legal case it was gravely contended that anything of this sort was rubber; it was only a question of grade. If this is to hold good there is no reason why Pará rubber should not be classed as a low-grade resin, as it undeniably contains a little resin. On the commercial side it is interesting to note how greatly the import of jelutong to America has increased in recent years, the European import showing a much slower rate of increase. I have been asked where it all goes to in America, but this is one of the points on which my knowledge is at fault. From some experiments I have made it is much inferior to resin as a water-proofing material, and as far as I am aware it has not replaced any of the ordinary resins of commerce in any trade applications. I never was enamoured with the proposals to make a rubber from it by extraction of the resinous matters with volatile solvents. This procedure has not only been suggested but has been put into actual practice in England. I believe I am right, however, in saying that the work has been discontinued, as it was not remunerative. Probably large as the present American demand seems to be, the supply from the Straits and Malaya is equal to it, and there is no need to go further afield. Practically the same material, however, is obtainable in a far distant part of the globe. I have recently been investigating the stuff which it was hoped would fetch at least a shilling per pound as rubber if it was cured by some of the advertised up-to-date methods. I was unable to hold out any encouragement in this respect, being still as of yore extremely sceptical about the transmutation of raw rubber brands except in the reverse direction to that desired. It would be interesting to know what the rate of profit is for the Eastern producers where the product sells for 2 pence per pound.

A RECENT meeting of the shareholders of this concern was held in order to consider a reconstruction scheme, the accounts for recent working showing a further loss and increasing the total adverse balance to £8,632. This appears to be another instance, of which there have been several others, where ill luck has dogged the footsteps of a new company founded in the ashes of one which has gone wrong. In a few sentences the history of the premises may be given. The location is Woodley, about eight miles from Manchester, and the main building is an old cotton spinning mill, which was turned into the Hyde Imperial Rubber Co. at the time of the evolution of the Dunlop tire

### THE UNITY RUBBER CO., LIMITED.

patent. A prominent partner in the business was Mr. Cresswell, Birmingham interests being also represented. Mr. Cresswell made a good deal of money out of the concern before he left it, and got into financial low water. A new company, called the Hyde Rubber Works, Limited, was then formed, and the premises extended. This company after a year or two got into difficulties and was carried on for some time by a receiver, who about three or four years ago disposed of the property to some capitalists, among whom were Messrs. Mandleberg & Co., Limited, the well-known waterproofers of Pendleton, Manchester. Before the property was taken over a sale by auction of the stock of rubber and chemicals was held, the machinery and plant being taken over by the new tenants, and those attending the sale finding inspection prevented by locked doors. Some time subsequently the concern was floated as a public company under its present title, though from what I gathered from intending subscribers there was nothing very attractive in the prospects for the outside investor. The business carried on was mainly in mechanical rubber goods, which were not manufactured at the Pendleton factory, and the present proposal is to transfer this part of the business also to Pendleton, so as to have the proofing and mechanical departments under one roof, so to speak. The Gee Cross rubber works which were put up to auction about a year ago and withdrawn, are in the same locality, being founded by Mr. Cresswell after he left the Hyde Imperial Company. A mile or two further on at Hyde the proofing business carried on for some years by Messrs. Gotliffe & Co., has been given up, so that this part of Cheshire seems to have fallen upon troublous times as far as the rubber manufacture is concerned.

THIS gentleman, who for some years has had control of the waterproof garment department—that is, the making up of the proofed cloth—at Messrs. Charles Macintosh & Co., Limited, has recently left the firm and taken up a post as representative of Messrs. I. Frankenburg & Sons, Limited. In his late position Mr. Atkinson, who altogether put in nineteen years with Messrs. Macintosh, succeeded Mr. L. C. Clamfett, who had succeeded Mr. S. T. Rowe. The last named also gave up his post to take up an important position at Messrs. Frankenburg, of which firm he subsequently became a partner. The esteem in which Mr. Atkinson was held by the staff under him was testified to by a presentation at a Manchester hotel.

**MR. W. S. ATKINSON.** intosh & Co., Limited, has recently left the firm and taken up a post as representative of Messrs. I. Frankenburg & Sons, Limited. In his late position Mr. Atkinson, who altogether put in nineteen years with Messrs. Macintosh, succeeded Mr. L. C. Clamfett, who had succeeded Mr. S. T. Rowe. The last named also gave up his post to take up an important position at Messrs. Frankenburg, of which firm he subsequently became a partner. The esteem in which Mr. Atkinson was held by the staff under him was testified to by a presentation at a Manchester hotel.

THE robbery and murder outrage at Tottenham by Russian miscreants was concerned with the money drawn to pay the

#### TOTTENHAM RUBBER WORKS.

weekly wages at Mr. Schnurmann's reclaiming works. It is not surprising that writers in the press refer to the premises as a rubber works, and the point is of no great importance. One daily paper refers to the long connection of Tottenham with the rubber manufacture, pointing out that the London Caoutchouc Co. was established in 1837 in an extensive building at Tottenham and that it was on the site of the present Schnurmann's works or immediately adjacent. Of course the trade and public associate the rubber manufacture of Tottenham with Messrs. William Warne & Co., Limited, who have long been located there. I don't know the history of the firm, and it occurs to me that possibly they are the successors of the old company mentioned above. It would probably prove of interest to many readers if the firm should enlighten the Editor on this topic.

IN a patent of Degen and Kuth, of Düren, Germany, it is claimed that a solution of vulcanized rubber is obtained by adding iodine to a rubber solution. The

#### IODIZED RUBBER.

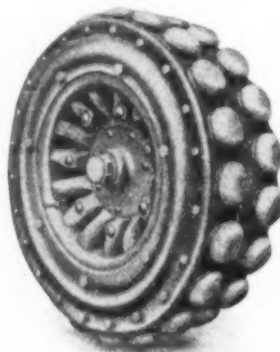
proportion mentioned is .4 grams iodine in 100 grams carbon tetrachloride and 4 grams Pará rubber in 100 grams carbon tetrachloride, the mixing being effected in the cold. The solution is stated to lose its stickiness and viscosity on standing, and to be capable of

filtration and sterilization, giving a product useful for surgical purposes. This is by no means the first time that the action of iodine on rubber in solution has been observed, and I believe the present position is that the chemical authorities are by means agreed as to the reaction taking place. This of course need not prevent the patent proving a success until a similar product is obtained by some body other than iodine—an eventuality which I am inclined to believe is by no means remote. With regard to the use of the term vulcanization in this case it seems altogether unjustified, as neither heat nor sulphur enters into the reaction. To talk about a solution of vulcanized rubber which can be filtered would lead to the supposition that something of much greater importance had been effected than is really the case. Iodized rubber seems to me a term which might conveniently be used. It will be noticed that the rubber solution is only of 4 per cent. strength, and is therefore of much greater tenacity than what is usually found in commerce.

#### USE OF THE WORDS "WIRE" AND "CABLE."

THERE has been and is a continued misunderstanding in the accounting departments of large contracting firms, supply houses, central stations, etc., as to the words "wire" and "cable" [says *Electrical World*]. The line department, for instance, of an electric light company will report that it has on hand so many feet of cable, leaving the purchasing department to guess what is meant or to request more specific information. In order to simplify matters one large company has restricted the use of the word cable to lead-covered conductors used either overhead or underground. The word wire is used to signify all conductors which are not covered with a lead sheath. In making entries for orders on the storehouse and in reporting material used on return work orders, care is taken to specify whether it is wire or cable, giving the insulation and size, such as, for example, 500,000 circ. mil, stranded, weatherproof wire, or No. 6 stranded, rubber-insulated wire. Inasmuch as rubber-insulated wire is sold by the foot, the report is made to state the number of feet of such wire. Weatherproof wire being sold by the pound, the quantity wanted or in stock is given in pounds. The reports or requisitions specify the number of feet of cable on hand or required. By this means all misunderstanding is avoided.

THE British courts have held the word "Diabolo," the name given to a game, of which a top known as a devil forms a part, not to be an invented word, and not to be registrable under the statutes. Diabolo is an old Italian variant for devil and the game to which it has been applied lately is an old game which had been known in other countries under the name devil, or foreign words having the same meaning.



THE "CYCLOPS" PNEUMATIC TIRE.

[A new English design. The air carrying part is built up in sections, each with a nipple at either end, the sections thus being connected into a continuous "tube." The Pneumatic Piston Tyre Co., Limited, London.]



## New Status of the Congo Rubber Country.

By Hon. James Gustavus Whiteley.

THE scepter of the Congo has again changed hands. A generation ago the dominion of "Darkest Africa" was divided between cannibal chiefs, "my lord, the Elephant," and other kings of the forest. Then came thirty years of white supremacy, under King Leopold's rule. And now the sovereignty has been formally and officially transferred to the Belgian People, who will henceforth govern through their representatives in Parliament assembled.

This last transformation scene has caused a great deal of interest in the world at large, but is, after all, a matter which chiefly concerns the Belgian nation. The principal changes are changes of domestic administration.

Under King Leopold's rule the Congo Free State was officially an independent Power. Neither the Belgian people nor the Belgian parliament had any voice in the management of it. The headquarters of the Congo government were in Brussels, where three "secretaries general" carried on the three departments of "foreign affairs," "finance," and "interior." These officials were responsible to the King alone. To outward appearances it was an extremely autocratic government, but, practically, it was no more autocratic than the administration of some of the British "crown colonies" in which the governor is, to all intents and purposes, clothed with despotic powers.

Now, all this is to be changed. There has been created a Belgian minister of Colonies, who has taken charge of Congo affairs. He is responsible to the Belgian parliament, and if parliament does not like the way he manages the business, it can easily cause his downfall. Moreover, the colonial budget is subject to the approval of parliament, which thus holds the purse strings and controls the situation. All new laws must be approved by the Belgian legislature, and all new grants of concessions must be submitted to the criticism of parliament. Taking it altogether, there are few colonies in Africa which have such "popular" government, or over which the home parliament has so much direct control.

The question is whether the system will work. The "one man power" of King Leopold's regime was efficient. Will the "two hundred men power" of parliament be equally efficient, or will "too many cooks spoil the broth"? On the whole the prospects seem good, in spite of the croakings of the envious, and also in spite of the fact that Congo concessionary shares are depressed and selling "on the bargain counter."

It is generally admitted that "one man power" is essential in the early years of colonial development. This principle is recognized in the wonderful colonial system of Great Britain. There must be concentration of authority, so as to allow quick and decisive action in dealing with colonial problems. As Count de Lesseps once said: "If there is anything important to do, and there are two of you to do it, there is one too many." Under King Leopold's personal rule in Africa the King was practically his own colonial minister. There was no delay in making the required laws. There was no withholding of funds for necessary expenses of development. As a result, railways were built, roads were made, steamboats were launched on the river, telegraph

lines were put up, government posts and hospitals were built, and schools (run chiefly by the Catholic missions) were subsidized. The whole country was put in such shape that the missionary and the trader could safely enter. This was "going some," considering the savage state of the country when King Leopold took hold of it.

The trader appreciated it, got busy, and made a large bunch of money. Two-thirds of the missionaries appreciated it, and thankfully availed themselves of the opportunity to carry Christianity and civilization to those who sit in darkness. Even the handful of dissatisfied Protestant missionaries, who are nothing if not critical, and who think they can run the country better than anybody else, are reluctantly compelled to admit that there has been wonderful "material development" under King Leopold's rule. If they were logical and honest with themselves, they would be also compelled to admit that the Powers were right

when they declared, at the Brussels conference, that the most efficacious way of civilizing the country is to open it up first. It is safe to say that this result could not have been accomplished so swiftly and so effectively had the Congo, from its infancy, been subject to the deliberation and delays of parliamentary government.

Circumstances are now different. All this preliminary work has been done, and the Belgian people and parliament may now advantageously take a hand in the development of the colony.

The transfer of sovereignty seems to have aroused the colonial spirit in the Belgian nation. The people are beginning to "think imperially" and to prepare seriously to take up the duties and privileges which go with the "white man's burden." Now that the annexation of the Congo is *un fait accompli*, even the anti expansionists are inclined to avoid hampering the new colonial administration, and seem disposed to stand shoulder to shoulder with the rest of their countrymen in defence of the colony against foreign aggression from any source.

A good start has been made under the new regime. Monsieur Renkin has been selected as colonial minister. He is a level-headed man of calm judgment, high ability, and quick decision. He is a man who deals with facts, not with theories. He has done an enormous amount of work in organizing the new colonial department, and in a few weeks he is to sail for the Congo so that he may have knowledge, at first hand, of the country and people whose destinies have been committed to his care.

It is rumored that, if circumstances permit, Prince Albert, the heir to the throne, will also go to the Congo this spring to inspect the colony.

The international relations of the Congo to the other Powers are, of course, affected by the transfer of sovereignty, but the changes are more in form than in reality. The Independent State of the Congo has gone out of business, but all its international obligations and treaties have been assumed by the new owners—the Belgian nation.

Baltimore, Maryland, February 17, 1909.



JAMES GUSTAVUS WHITELEY.  
[In the uniform of Consul General of the Congo Free State.]

## The Obituary Record.

### ABNER H. ANGELL.

**A**BNER HARRIS ANGELL was born December 17, 1832, in Providence, Rhode Island, being the son of Jonathan Sprague Angell and Amy Angell Harris. The Angell family were one of the first five settling on the site of the present city of Providence. Mr. Angell was educated in Providence, graduating from the high school, and going into business first in that city. Just before the civil war he removed to Baltimore, where he engaged in the oil trade. At the close of the war he married Kate Medairy, of that city, and they moved to New York. Mr. Angell became a member of the New York Stock Exchange, and afterward joined The H. F. Taintor Manufacturing Co., twenty-eight years ago, which business, with the aid of his energy and ability, grew to be the first of its line in the United States. Up to about eight months ago he was most active in business, but owing to a complication of diseases he finally retired. On February 4 he suddenly and painlessly passed from life, his mind being clear until the end. He is survived by a sister, Mrs. William Armour, of Providence, and three children, Walter H., Isabel M., and Florence M. His wife died while the children were small. Funeral services were held at the Angell residence, No. 257 West Eighty-fourth street, New York, on Sunday, February 7, the Rev. Percy S. Grant, of the Church of the Ascension (Episcopal), officiating. Many beautiful floral tributes were sent, and the house overflowed with the presence of sincere friends, who paid their respects to his beautiful, gentle, courteous nature. The interment occurred on Monday morning, February 8, in Kensico cemetery, with only the immediate family present, the Rev. Walter E. C. Smith, also of the Church of the Ascension, having charge of the service.

For many years Mr. Angell was in close touch with all of the leading rubber manufacturers in the United States. Aside from his business association with them, he was of such magnetic presence and was so well informed in every way, and was so friendly and human in his sympathies, that he was the personal friend of most of them, as well as the business acquaintance. The death of Henry F. Taintor, president of The H. F. Taintor Manufacturing Co., with whom Mr. Angell was so long associated, was reported in THE INDIA RUBBER WORLD as recently as its issue of December 1 last.

### HENRY W. PEABODY.

In the death of HENRY W. PEABODY, senior member of the firm of Henry W. Peabody & Co. (Boston), the commercial interests of the world lose one who was a power for many years. His chief interests centered about the great exporting and importing house that he established in 1866. This in a measure brought him in touch with the rubber trade. It was, however, in connection with the Adamanta Manufacturing Co. that he really became identified with it. This company operated for some years under German patents for the production of rubber-like plastics and the treatment of resins for industrial purposes. Personally, Mr. Peabody had a striking personality. He was kindly, dignified, self-possessed, and able. He knew the business world intimately, and was an authority on finance. Prior to

the establishment of THE INDIA RUBBER WORLD the Editor of this paper was associated with him in business for some years, and testifies to his sterling character, his ability, and his wonderful breadth of view, both commercial and humanitarian. Of the best type of New England business pioneer, his loss will be severely felt in that one of the great, successful, conscientious merchants has passed.

### CHARLES E. FARGO.

CHARLES EVELYN FARGO, who died at his home in Dallas, Texas, January 10, 1909, was born at Great Barrington, Massachusetts, February 27, 1850. Six years later his father, the late Charles H. Fargo, removed to Chicago, where he laid the foundation of a great business in shoe manufacturing and jobbing, which from 1870 was conducted under the style of C. H. Fargo & Co. In time Charles E. Fargo became a partner, and upon the death of his father, in 1892, succeeded to the office of president. The house of Fargo became very large distributors of rubber footwear in the West—probably at one time the largest in that region. When the L. B. Smith Rubber Co., of Setauket, Long Island, introduced to the trade the then new "thirds" in rubber footwear, C. H. Fargo & Co. took on their sale extensively, and when the latter house became temporarily embarrassed, in 1888, the Smith company held claims against them of \$275,000. Later the house again became embarrassed, confessing judgment on August 6, 1895, in favor of the United States Rubber Co. and a subsidiary company, on notes for \$170,000, giving rise to litigation which continued for five years, the Chicago house ultimately being liquidated. Charles E. Fargo was later successful in another field, and left a family well provided for and a host of staunch friends. His remains were interred in Chicago.

### WILLIAM GOW.

WILLIAM GOW, senior partner in the firm of Messrs. Gow, Wilson & Stanton, Limited, of London, died in the latter part of December, in his sixty-fourth year.

Mr. Gow went from England to Assam in 1862, and, returning to London in 1879, he organized the business in the tea trade which later was incorporated under the style given above. In 1887 he went to Ceylon, where he resided four years, engaged in the tea interest. Mr. Gow's firm has taken a lively interest in the development of plantation rubber from the beginning, and their reports on plantation rubber prices and on plantation shares have been widely regarded as authoritative. Mr. Gow was a director in three important rubber plantation companies, in addition to the Caledonian Ceylon Tea Estates, Limited, all of which have been successful.

### OBITUARY NOTES.

HERR JACQUES LUTZ, director of the Deutschen Michelin-Pneumatic-Aktiengesellschaft, at Frankfort o/M.—the German branch of Michelin & Co., the French tire firm—died on January 18.

THE death is reported in England, on December 28, of ROBERT THOMSON, formerly head of the Jamaica botanical department. He had recently devoted considerable attention to rubber production, and written reports of value on several little known species.



THE LATE ABNER HARRIS ANGELL.

## American and European Factory Policy.

IT would be difficult to specify which one of a half dozen rubber factories in the world produces the greatest variety of goods. The two great factories at Milan and St. Petersburg naturally have a wide range of products, for the reason that they were in their inception in the nature of monopolies, with certain government concessions, and called upon to supply any articles in rubber for which there might be a demand in their respective countries. Other factories in this branch have grown up in Italy and Russia, but not on such a scale as to compete seriously with the original factory in each country.

In other countries now important in the rubber industry no such condition has obtained. In the United States, for example, the rubber manufacture first came into existence in a practical way under the patents of Charles Goodyear, who granted licenses for the use of his vulcanization discovery—one or more factories for footwear, another each for belting, waterproof clothing, gloves, elastic bands, and so on. One important American rubber manufacturer made a beginning by obtaining a license from Goodyear to make doorsprings alone. Similarly, when hard rubber came into existence, the Goodyear family licensed a limited number of persons to use their patent. The result of this policy was to divide the rubber industry in America into many branches, each entirely independent, so that large factories grew up, employing thousands of workers specialized to the extent that, while one might spend a life time in a footwear factory, the skill he acquired would hardly avail him in a factory where rubber boots and shoes were not produced. An illustration is the factory which was developed in the rubber footwear line near Boston, under the management of the late Hon. Elisha S. Converse, who lived until the corporation of which he was treasurer disbursed more than \$29,000,000 in dividends, though the factory never produced a commercial article other than boots and shoes. The Goodyear patents, of course, expired long ago, but the effect of the Goodyear licensing policy is still potent in the industry.

In Great Britain, Germany and France, where the rubber industry was developed under different auspices, the conditions of specialization here referred to never existed, so that while there are factories in each of the countries named confining their production within narrow lines, it is more usual for any establishment of importance in the industry to turn out a very wide range of goods—mechanicals, clothing, surgical, tires, hard rubber, and so on.

The question has been much discussed as to the comparative economy of the two systems, but what may be accepted as a straw showing the prevailing current is the appearance of a catalogue entitled "Automobile Tires of the United States Rubber Co.," which company was described in its prospectus, issued October 27, 1892, as "a corporation organized - - - for the manufacture principally of rubber boots and shoes." Throughout the prospectus mentioned there was no reference to any other form of intended rubber goods production; the initial list of directors embraced the leaders in the rubber shoe industry, and included none interested in any other form of rubber goods production except incidentally, as in the case of two or three companies which made some waterproofed goods or druggists' sundries. The United States Rubber Co. has since figured in the public mind as a producer of rubber footwear, and on the Stock Exchange quotations on its shares have been influenced invariably by such weather conditions as were likely to affect the popular demand for boots and shoes.

Since the beginning until now the United States Rubber Co., while distributing annually many hundreds of thousands of descriptive catalogues and price lists of their products, have seldom

attached their name to a list of any other form of rubber goods. The appearance of a tire catalogue under the name of this company, therefore, seems worth noting, and it is not unlikely to be followed by lists of goods in other lines from the same source. One indication in this direction may be found in the fact that several branch houses of this important concern, incorporated originally as the "Chicago Rubber Shoe Co.," "Omaha Rubber Shoe Co.," and the like, lately have undergone a change of firm style through the omission of the word "Shoe," while the houses referred to are now advertising "everything in rubber."

The acquisition by the United States Rubber Co. within the past year or two of the control of the \$25,000,000 Rubber Goods Manufacturing Co. makes the former company practically a manufacturer of mechanical rubber goods of every type, tires to a very important extent, waterproof clothing, druggists' sundries, and insulated wire. The benefit to the shareholders of the United States company is that whereas dividends formerly were contingent upon a sufficient snowfall to induce the public to buy rubber footwear freely, their organization to-day is in position to market other goods on a large scale, thus offsetting a dull season in the footwear trade such as is bound now and then to occur in the United States.

It might be suggested that during such a season as the present, during the early part of which there was so little snow, the same condition has largely favored motoring, and to that extent promoted a demand for tires. The United States Rubber Co. thus approaches the conditions of general rubber goods production hitherto exemplified chiefly in Europe, though upon a somewhat different basis. That is, the rubber footwear production continues to be specialized in certain factories, including that already mentioned in connection with the late Mr. Converse, while certain other plants are devoted to tires alone, and still others to mechanical goods, without any attention to tires. After all, it would seem that these distinctions are only a matter of degree.

One large corporation controls in a broad way the production of a number of factories, each turning out a distinct class of goods, leaving to the trained experts in charge of each factory the making of the particular kind of goods designated. The principle is the same as in the management of such a concern as The B. F. Goodrich Co., with its single plant of a score or more of distinct departments, ranging from rubber toys to automobile tires, each in charge of a manager who is quite independent of any other branch of the factory. The Goodrich house is based more upon the lines existing in the principal British and Continental factories in Europe, and it would seem that their plan has at least one advantage over that of the United States Rubber Co., who control widely separated factories, each highly specialized. That is to say, where the total production of one company is confined to a single establishment, there is possible a certain interchange of workers, whereby those employed in a given branch in dull times may be transferred to another branch where the demand for goods is unusually large.

To-day if a rubber shoe factory planned to turn out 50,000 pairs per day should be closed on account of a temporary decreased demand, all hands would have to cease work. But at least those employed in treating rubber in the primary processes might be employed with equal efficiency in preparing rubber for other goods if these goods were being produced on the same premises, instead of as now in factories a hundred miles distant.

There was a time when the printed trade list of a rubber works, in whatever country, was a simple affair—hardly more than a leaflet being required in many cases to advise the



trade of what a concern had to offer. Nowadays a complete list of products of a single factory, even in concise style, may fill a heavy tome if comprised within a single cover. Hence the present-day practice of issuing separate lists for different classes of goods, each intended for the class of dealers or consumers most likely to be interested.

There is a company in England with an exceptionally long list of products—The India Rubber, Gutta Percha and Telegraph Works Co., Limited—but their output includes the whole range of electrical products. They are active in the same field as the General Electric Co., of the United States, or the Allgemeine Elektrizitäts-Gesellschaft, of Germany, in addition to manufacturing rubber goods so extensively. The English company named will estimate with equal readiness on electric bell pushes—say at 7s. 6d. or less per dozen, with discount from list—or on an ocean cable to cost millions. They make dynamos, motors, telegraph and telephone outfits, electric lighting supplies, and so on. But they are none the less extensive makers of general india-rubber and gutta-percha goods, issuing separate lists for lawn tennis goods, rubber tiling, cycle tires, water bottles, waterproof fabrics, air cushions, confectionery molds, belting, bottle stoppers, motor tires, golf balls—but there is not room here for everything. It may be noted, however, that at the company's Silvertown works are made many articles in hard rubber—a branch sometimes referred to as non existent in England, probably for the reason that large works devoted to hard rubber alone are not to be found there, as in the United States.

There comes to notice just now a collection bound together, of the latest Price Lists of Charles Macintosh & Co., Limited, of Manchester, England. They are engaged in the electrical branch only to the extent of insulating wires, but the range of their rubber goods products apparently is as wide as that of any other house in the world. They manufacture hard rubber goods, in addition to soft rubber lines, to which 24 different catalogues in this collection are devoted, besides which others are mentioned as covered by special catalogues. It is a long range from heel pads to such tiling as this company supplied for the new steamships *Lusitania* and *Mauretania*, from cut sheet finger stalls to 10-ply machinery belting—but the Macintosh firm list them all.

Nothing has been written here with a view to giving more prominence to the companies named than to certain others, but the article has been suggested by some trade publications latest to hand.

#### TO PROMOTE FOREIGN TRADE.

A NOTABLE address was delivered by the Hon. Oscar S. Straus, L.H.D., LL.D., secretary of commerce and labor in President Roosevelt's cabinet—a man familiar with commercial affairs at home and abroad and with a record as a successful diplomat—at the first annual meeting of the National Council of Commerce which has been formed to promote coöperation between certain departments of the government and the commercial bodies of the country, with a view particularly to the extension of American trade abroad.

"The commercial organizations in Great Britain, Germany, and France, our chief commercial rivals," said the speaker, "have found it not only advantageous, but necessary, to coöperate effectively with their respective governmental agencies, and on the other side the governments of those countries have found it most helpful, in order to advance their commerce, to coöperate with and be in constant touch with their commercial organizations. The result is, in such countries, when the government makes a move for the purpose of protecting commercial interests, the officials are in advance fully advised what the various commercial interests require and demand. How can you expect your law makers, your senators and representatives in Congress, who come from widely detached and circumscribed districts, to have an adequate understanding of the varied commercial in-

terests of this great country and of all its different industries unless there is some sufficiently representative agency qualified to advise with them and with the departments of the government having to do with commerce as to the requirements of the diversified interests of the country throughout its several sections?

"The purposes to be served by the National Council of Commerce are not for oratory, or for dining, or for well turned resolutions, but for practical everyday work, in order to bring the great commercial interests of this country together so that they can consult, advise and act, and to the end that when these combined bodies speak they will voice the well considered interests of commercial America."

The National Council of Commerce made its start with a membership of 49 bodies, including the National Association of Manufacturers, The American Cotton Manufacturers' Association, and other national or state organizations, among which are those representing these interests: Agricultural implements, cattle raising, clothing, cotton (raw and manufactured), drugs, glass, groceries, hardware, liquors, machine tools, meat packing, milling products, shoes and leather, vehicles, and wine growing. Likewise boards of trade, chambers of commerce, or other like bodies located in the cities of Atlanta, Augusta, Ga., Boston (two), Buffalo, Chicago (two), Cincinnati, Cleveland, Denver, Galveston, Honolulu, Jacksonville, Kansas City, Minneapolis, New Haven, New York (four), Philadelphia, Rochester, St. Louis (two), San Francisco, and Savannah. Besides, the list includes the American Chamber of Commerce in Paris and the American Association of Commerce and Trade in Berlin.

Offices for the Council have been opened in Washington, in the Adams building, No. 1335 F street, N. W., in charge of the secretary, Mr. William R. Corwine, formerly the efficient secretary of the Merchants' Association of New York.

#### INDIA RUBBER GOODS IN COMMERCE.

##### EXPORTS FROM THE UNITED STATES.

OFFICIAL statement of values of exports of manufactures of india rubber and gutta percha for the month of December, 1908, and for five calendar years:

MONTHS.	Belting, Packing, and Hose.	Boots and Shoes.	All Other Rubber.	TOTAL.
December, 1908 .	\$125,218	\$104,371	\$325,178	\$554,767
Jan.-November .	1,131,272	1,224,799	3,255,507	5,611,578
Total, 1908 .	\$1,256,490	\$1,329,170	\$3,580,685	\$6,166,345
Total, 1907 .	1,402,373	1,646,880	3,944,080	6,993,333
Total, 1906 .	1,162,751	1,213,196	3,282,659	5,658,606
Total, 1905 .	1,182,761	1,389,226	2,833,511	5,405,498
Total, 1904 .	890,634	1,226,772	2,341,039	4,457,887

Exports of rubber boots and shoes have been, in quantity: 2,209,116 pairs in 1906; 3,161,865 pairs in 1907; 2,440,693 pairs in 1908.

Exports of reclaimed rubber: \$544,135 in 1906; \$598,494 in 1907; \$327,405 in 1908.

##### IMPORTS INTO THE UNITED STATES.

	1906.	1907.	1908.
India-rubber goods . . . . .	\$2,389,082	\$2,154,425	\$1,509,629
Gutta-percha goods . . . . .	240,267	141,535	97,593
Total . . . . .	\$2,629,349	\$2,295,960	\$1,607,222

TIRE LIFE IN ENGLAND.—Mr. S. F. Page, one of the best known British automobile experts, has accumulated a mass of statistics concerning wear and tear on tires. The results of these tire tests are reduced to ton miles, that is, the number of miles the tires would have run had the weight of the cars been exactly one ton. For a light weight 6 hp. runabout, weighing say 13 cwt., the average life of a tire is computed at 7,000 miles. He estimates further \$5 for each 1,000 miles as the approximate cost of tire for such a car.

## Recent Patents Relating to Rubber.

### UNITED STATES OF AMERICA.

ISSUED JANUARY 5, 1909.

- N**O. 908,475. Wheel tire. T. Midgley, Hartford, Conn., and E. Hopkinson, East Orange, N. J.  
 908,488. Pneumatic tire. J. L. Newell, South Bend, Ind.  
 908,573. Nozzle for syringes and the like. H. A. Kaysan, Cassel, Germany.  
 908,925. Manufacture of rubber. [A process of separating resins from rubber by the use of solvents, one of which affects rubber alone and another resins.] M. Wilderman, London, England.  
 909,001. Divided wheel rim serving as tire retainer. R. Kronenberg, Ohligs, Germany.  
 909,003. Hose coupling. C. E. Lepage, Chicago.  
 909,034. Vehicle wheel. C. Stanley, San Francisco, assignor to Economic Safety Automobile Wheel Co., Alameda county, Cal.  
 909,093. Nozzle for syringes and the like. H. A. Kaysan, Cassel, Germany.

#### Design Patent.

- 39,747. Sole of shoes. F. B. McKenna, Providence, R. I., assignor to the Bourn Rubber Co.

#### Trade Marks.

- The Hartford Rubber Works Co., Hartford, Conn.:  
 26,467. The letters *No. 80-H*. For wheel tires.  
 26,469. The word *Hartford*. For wheel tires.  
 New York Belting and Packing Co., Ltd., New York city:  
 28,165. The word *Nahma*. For rubber mats.  
 28,166. The letters *N. P. M.* For rubber maps.  
 28,170. The word *Ruby*. For rubber packing.  
 28,174. The word *Magic*. For rubber packing.  
 28,176. The words *Double Diamond*, enclosed in a diamond-shaped border, superimposed on another. For rubber belting, hose and packing.  
 28,181. The words *1846 Para*. For rubber belting and hose.  
 28,183. The word *Puritan*. For rubber hose.  
 28,185. The words *Test Hose*. For rubber hose.  
 28,186. The word *Multiplier*, in a rectangular border. For rubber hose.  
 28,188. The word *Safety* on a scroll over the representation of an office safe. For rubber hose.  
 28,190. The word *Oxford*. For rubber hose.  
 28,191. The word *Tuxedo*. For rubber hose.  
 28,192. The words *Spider Hose*, under the representation of a spider, all within a triangle. For rubber hose.  
 28,194. The word *Comet*, over the representation of a comet, within an oval-shaped border. For rubber hose.  
 28,195. The word *Delta*, in a scalloped-shaped oval border. For rubber hose.  
 28,196. The word *Cable*. For rubber hose.  
 28,197. The word *Lenox*. For rubber hose.  
 28,198. The word *Aetna*. For rubber hose.  
 30,107. The representation of a carboy in a box. For rubber belting, hose, and packing.  
 The Mechanical Rubber Co., New York city:  
 31,115. The word *Palladium*, across the face of a shield. For rubber hose.  
 30,119. The representation of an elephant. For rubber belting, hose, and packing.  
 Also the following:  
 31,635. Fedor Burgman, Dresden, Germany. The representation of a rising sun over a roof. For rubber and other packing.

ISSUED JANUARY 12, 1909.

- 909,131. Hose coupling. J. J. Antic, Allegheny, Pa.  
 909,180. Tire. E. T. Greenfield, Kiamasha, N. Y.  
 909,181. Process of making tires. *Same*.  
 909,200. Hose coupling. B. Morgan, Newport, R. I.  
 909,287. Horseshoe pad. J. Dillon, Hackensack, N. J.  
 909,368. Wheel tire rim. J. A. Connor, Grogan, Ohio.  
 909,475. Metallic tread for pneumatic tires. M. C. St. John, Chicago.  
 909,567. Rubber heel. R. T. Elwell, Paterson, N. J.  
 909,603. Tile. [Interlocking, for flooring.] A. S. Janin, New York City.  
 909,827. Crutch grip. E. H. Seibert, St. Louis, Mo.

#### Trade Marks.

- 28,182. New York Belting and Packing Co., Ltd., New York city. The word *Dragon*. For rubber belting and hose.  
 30,380. Peerless Rubber Mfg. Co., New York city. The word *Perfected*, across a combination of the letters *H* and *W*. For rubber hose.  
 30,381. *Same*. The word *Peerless*, over the representation of a ship under sail. For rubber belting.  
 30,861. Howard R. Levick, Philadelphia. The word *Flexo*, in script. For rubber hose.  
 30,872. F. P. Kirkendall & Co., Omaha, Neb. The words *Mission Shoe* over, and the words *Rest for the sole* under, the representation of a mission or church. For rubber and other footwear.

ISSUED JANUARY 19, 1909.

- 909,062. Single tube pneumatic tire. J. A. Swinehart, Akron, Ohio.  
 909,978. Vehicle tire. J. F. Wilmot, Detroit, Mich.  
 909,979. Respiratory apparatus. E. E. Zerkle, Chicago.

- 909,992. Outer cover for pneumatic tires. P. L. Desprez, Lyon, France.  
 910,009. Vehicle wheel. N. E. Meredith, Indianapolis, Ind.  
 910,134. Tire of vehicles. E. Knowles, Providence, R. I.  
 910,370. Process of making hollow rubber articles. F. J. Gleason, Walpole, Mass., assignor of one-half to A. T. Baldwin, Buffalo, N. Y.  
 910,441. Pneumatic tire. C. E. W. Woodward, Chicopee Falls, Mass.  
 910,457. Wheel tire. R. F. Bryant, assignor of one-fourth each to J. F. Harwood and J. H. Wood, all of Bloomington, Ill.

#### Trade Marks.

- 28,177. New York Belting and Packing Co., Ltd., New York city. The word *Vulcan*. For rubber belting, hose, and packing.  
 28,187. *Same*. The initials *R. R. S.* For rubber hose.  
 36,108. The Darling Pump and Mfg. Co., Ltd., Williamsport, Pa. The word *Darcova*. For a rubber composition packing for oil well use.

ISSUED JANUARY 26, 1909.

- 910,520. Method of manufacturing solutions of caoutchouc. E. Fischer, Schöneberg, assignor to Siemens & Halske, A.-G., Berlin, Germany.  
 910,579. Safety hose coupling for railway air brakes. K. Rath, Szabadka, Austria-Hungary.  
 910,612. Vehicle wheel. G. Vinet, Neuilly-sur-Seine, France.  
 910,689. Pneumatic pad for harness. J. M. Kelly and F. L. Rankin, Greensburg, Ind.  
 910,733. Vehicle wheel rim. E. C. Shaw, Akron, Ohio, assignor to The B. F. Goodrich Co.  
 910,735. Machine for mounting hose on mandrels. S. J. Sill, assignor of one-half to H. H. Hewitt, both of Buffalo, N. Y.  
 910,770. Resilient flexible conduit. U. S. Armstrong, New Kensington, Pa.  
 910,868. Vehicle wheel rim. E. C. Shaw, Akron, Ohio, assignor to The B. F. Goodrich Co.  
 910,869. Vehicle wheel rim. *Same*.  
 910,884. Scalp sprayer. W. B. Van Eps, Rochester, N. Y.  
 910,891. Tubular structure. [Woven fabric, for fire hose and the like.] L. Atwood, assignor of one-fourth to J. M. O. Hewitt, both of Philadelphia.

#### Trade Marks.

- 28,178. New York Belting and Packing Co., Ltd., New York city. The word *Carbon*. For rubber belting and hose.  
 30,114. The Mechanical Rubber Co., New York city. The words *Seamless Tube Hose*, within and outside of two circles forming the outline of a section of hose. For rubber hose.

[NOTE.—Printed copies of specifications of United States patents may be obtained from THE INDIA RUBBER WORLD office at 10 cents each postpaid.]

### GREAT BRITAIN AND IRELAND.

#### PATENT SPECIFICATIONS PUBLISHED.

The number given is that assigned to the Patent at the filing of the Application, which in the case of those listed below was in 1907.

\*Denotes Patents for American Inventions.

- [ABSTRACTED IN THE ILLUSTRATED OFFICIAL JOURNAL, JANUARY 13, 1909.]  
 20,528 (1907). Swinging rack for fire hose for interiors of buildings. J. Morris, Eccles.  
 20,660 (1907). Pneumatic tire with chain mail cover, outside of which is a rubber or leather tread. C. R. Duggan, Ranchi, India.  
 20,729 (1907). Emergency tire other than pneumatic, and means of attaching to the wheel. A. Turnbull, St. Mungo Works, Glasgow.  
 20,764 (1907). Collar for waterproof coat for motorists. V. Schneider, Paris.  
 20,797 (1907). Inner tube for a pneumatic tire, with ends tapering to a point. T. H. R. Craig, Bray, Ireland.  
 20,813 (1907). Method of molding covers of pneumatic tires. R. Milne, and C. A. and R. F. Hutchison, Prestwick, Ayrshire.  
 20,892 (1907). Golf ball cover made by twisting a tape of rubber into a strained condition, tying the ends together, and, with the addition of gutta-percha as a binder, molding into a spherical shell. A core of rubber thread wound under tension is used. F. E. Blaisdell, Kensington, and Golf Balls, Ltd., Hammersmith, London.  
 20,893 (1907). Portable vulcanizer for pneumatic tire repairs. F. Grover, E. Cornock and Forgrave Machinery Co., Leeds.  
 20,961 (1907). Golf ball with striking face including gutta-percha and vulcanized fiber. R. B. Martin and A. Patrick, Edinburgh.

[ABSTRACTED IN THE ILLUSTRATED OFFICIAL JOURNAL, JANUARY 20, 1909.]  
 21,111 (1907). Wheel rim for pneumatic tires. H. Levy and F. P. Elliott, Walthamstow.

- 21,112 (1907). Emergency rim for pneumatic tire and means for attachment at the side of disabled rim. *Same*.  
 21,280 (1907). Detachable rim for pneumatic tires. H. Edmunds, and Martin D. Rucker, Westminster, London, the latter of whom will be remembered as associated with Ernest Terah Hooley in the promotion of the great Dunlop tire company, several years ago.  
 21,310 (1907). Pneumatic tire with non-slipping devices of metal on either side of the tread. J. Dorange and P. Buchillet, Paris.  
 21,313 (1907). Compound cord for fabrics for hose pipe and pneumatic tires, made by securing side by side two or more cords of different degrees of extensibility and of the same or different diameters. T. Sloper, Devizes, Wiltshire.  
 21,332 (1907). Apparatus for vulcanizing tires or tire tubes, heated electrically by resistances immersed in water or other liquid contained in the apparatus. W. H. Welch and H. Frost & Co., London.

- 21,340 (1907). Golf ball with core of rubber wound thread and gutta-percha cover. J. H. Roger, Glasgow.
- 21,361 (1907). Spring wheel with tire of tread members resting upon a pneumatic cushion enclosed by side plates. L. Heusch, Paris, France.
- 21,443 (1907). Construction of hose pipes. E. L. Curbishley and Gorton Rubber Co., Ltd., Openshaw, Manchester.
- 21,471 (1907). Tire composed of thick bands of leather and rubber resting upon laminated plate springs. A. H. Swinton, London.
- \*21,473 (1907). Pneumatic tire with puncture preventing device consisting of hinged metal plate inside the cover. M. M. Mills, Kingsbridge, New York.
- [ABSTRACTED IN THE ILLUSTRATED OFFICIAL JOURNAL, JANUARY 27, 1909.]
- 21,700 (1907). Metallic puncture preventing band to fit between the air tube and cover of pneumatic tires. A. Hopkins, Dartford, Kent.
- 21,726 (1907). Circumferentially divided rim for pneumatic tires. S. Z. de Ferranti, Grindleford, Derbyshire.
- 21,772 (1907). Synthetic india-rubber. A. Heinemann, Maida Vale, London.
- \*21,809 (1907). Men's garters. G. H. Phelps, Boston, Massachusetts.
- 21,863 (1907). Fabric construction for tire covers. E. Herkner, Oberschöneweide, Berlin, Germany.
- 21,887 (1907). Automatic inflator for motor car tires. G. T. Adams and W. G. Martin, Tonbridge Wells, Kent.
- 21,893 (1907). Heater for dental rubber. C. E. Woodstock, Carlisle.

### THE FRENCH REPUBLIC.

#### PATENTS ISSUED (with Dates of Application).

- 393,551 (Aug. 6, 1908). F. Chalmardrier. Employment of gelatine in tire repairs.
- 393,590 (Aug. 21). Trigwell. Repairs for tire covers.
- 393,649 (Aug. 25). R. J. Evans. Rubber tire.
- 393,669 (Oct. 31, 1907). Pneumatic tire.
- 393,754 (July 21, 1908). A. G. Chamboniere. Two piece rim for tires.
- 393,767 (Aug. 5). de Launay and la Mothaye. Protector for pneumatic tires.
- 393,831 (Aug. 31). L. Boirault, P. Boucher and M. Dechaume. Wheel with elastic tire.
- 393,841 (Sept. 1). F. Weith. Cover for pneumatic tire.
- 393,849 (Nov. 7, 1907). A. Loiseau. Pneumatic tire.
- 393,857 (Sept. 1, 1908). A. M. MacFarland. Tire.
- 393,865 (Sept. 1). J. L. G. Dykes. Tire.
- 394,007 (Sept. 7). E. Degener-Böning. Elastic tire.
- 394,046 (Nov. 15, 1907). D. Lance. Elastic tire.
- 394,117 (Sept. 11, 1908). G. Middleton. Protector for tires.
- 394,015 (Sept. 7). O. Vogel. Electric storage apparatus.
- 394,198 (Nov. 19, 1907). A. Wolber. Pneumatic tire.
- 394,355 (Sept. 16, 1908). C. G. Rodeck. Wheel tire of steel cables.

[NOTE.—Printed copies of specifications of French patents may be obtained from R. Bobet, Ingenieur-Conseil, 16 avenue de Villier, Paris, at 50 cents each, postpaid.]

### "LANDOLPHIA" ROOT RUBBER.

[FROM THE KEW "BULLETIN," NO. 10, 1908.]

MR. FELIX H. HUNICKE, of the Continental Rubber Co. of America, whose name is well known in connection with the guayule rubber industry of Mexico, has recently visited the neighborhood of the Black River, Stanley Pool District, Congo Free State, and has kindly presented to the Royal Botanic Gardens, Kew, a series of samples illustrating the process which he has evolved for obtaining a good sample of rubber from the bark of the roots of *Landolphia Thollonii*. The roots are cut up into sections from which the bark is removed, and the woody portions are then discarded. The separated bark is then placed in the "Hunicke" machine and ground to powder, with the result that the finely granulated bark falls out and the rubber is left behind. This rubber appears to be practically free from the impurities of pieces of bark which are always to be found in considerable quantity in the rubber as extracted by the natives. The rubber may be sheeted or exported direct in the somewhat granular form in which it is turned out by the process. The rubber is of very good quality, and the yield from the roots is said to be about 10 per cent. As the process is of a simple character, and there is an abundance of water power, the new process seems likely to make a considerable advance in the value of the *Landolphia* root rubber. The value of the *Landolphia* does not end with the rubber, for from the granulated bark a fine, rich, red brown dye is obtained. Mr. Hunicke has presented samples both of the granulated bark and of the dye, and

also specimens of the impure rubber as extracted by the natives, and a herbarium specimen of the leaves and flowers of *Landolphia Thollonii*. [This plant is illustrated in THE INDIA RUBBER WORLD, May 1, 1903—page 261.]

### "PALO AMARILLO" AGAIN.

THE enterprise known as the Consolidated Palo Amarillo Rubber Co. [see THE INDIA RUBBER WORLD, February 1, 1909—page 191] continues to attract much attention in the Mexican press. The report generally is that the company has been formed to work under a concession carrying the exclusive right to extract rubber from two wild trees, "Palo amarillo" and "Amate," which thrive in different parts of the republic, and to make rubber goods and by products from the material gained. Work must be in progress on a commercial scale within three years from February 1 last. The company is incorporated in one of the western United States, with \$20,000,000 capital authorized, and the officers are George W. Young, president; Robert H. McCurdy, vice president; and Frederick Kopf, all connected with prominent New York business houses, and William H. Ellis, described as a banker and broker, New York and Mexico City, general manager. These details are supplied to THE INDIA RUBBER WORLD by W. H. Ellis. Further information could not be obtained at the banking office of George W. Young, No. 59 Cedar street, New York.

THERE is so much interest of late with regard to "Palo amarillo" that the following statement which comes from one of the best equipped chemical laboratories making a specialty of india-rubber, is timely:

"We had some of the latex sent up and the samples we made from the milk of the latex gave us in gum 34 per cent. and resin 6 per cent. The gum gave absolutely no cure and gave no elasticity. We have never been able to find any trace of rubber in the gum, but the gum was a rubber like gum but so sticky that it could not be worked on a mill. It might make a first class fly paper."

### NEW GUAYULE RUBBER FACTORIES.

A NEW factory is being erected at Puerto del Carmen, in the state of Coahuila, Mexico, to extract rubber from the guayule plant, by Compañia Guayulera de Torreon, S. A. mentioned in THE INDIA RUBBER WORLD, July 1, 1907 (page 320). The officers are Manuel Garza Aldape, president; Baltazar G. Peña, vice-president and manager; and G. G. Barreda, secretary. These, with Adolfo Aymes and Melesio Garza, form the directory. A letter to THE INDIA RUBBER WORLD regarding this company says: "They have stumpage contract covering a long period on an immense tract of land, covered with guayule, located in the northern part of this state, and some 100 miles west and south of the Texas line. This contract was entered into under very favorable conditions some time ago, and the erection of a factory plant has been contracted for. They expect to become large producers of rubber when the market will justify it, and at present will extract some 25 tons per month, and the product will probably be contracted to European concerns."

R. L. Bonnet, who is manager of the American Bank of Torreon, and Enrico Notholt have undertaken the erection of the factory, for which purpose they are mentioned in the Mexican newspapers as having asked the government for exemption from taxation for 10 years on a certain amount of capital to be invested in its construction.

Compañia Guayulera de Saltillo was mentioned in the Torreon (Mexico) *Enterprise* of February 6 as about ready to begin on a large scale the operation of their plant at Saltillo for the extraction of rubber from the guayule shrub, by a special chemical process.



## What The Rubber Planters Are Doing.

### "CASTILLOA" RUBBER RESULTS IN MEXICO.

**A**N American crude rubber merchant in Boston advises **THE INDIA RUBBER WORLD**: "Shipments of *Castilloa* from Mexican plantations have now begun to come forward with regularity, and I think the increase in the amount will be about the same as that of the *Hevea* has been from Malaya and Ceylon." He mentions the recent receipt and sale of 2,000 pounds of plantation *Castilloa* rubber from one plantation in Mexico, which realized 90 cents a pound for "grena" and \$1.05 for "biscuits," the latter being exceptionally fine. Shipments from two other plantations are mentioned, which also brought good prices. Our correspondent adds: "All these plantations will tap a much increased quantity this season; in fact, one, I expect, will tap something like 15,000 or 20,000 pounds." This information is communicated with reserve as to the particular plantations involved. On this page appears an illustration from a photograph of a lot of cultivated *Castilloa* rubber gathered by La Zacualpa Rubber Plantation Co. on their estate in Mexico, and placed on exhibition for some time doing December in the store of the Goodyear Rubber Co., Nos. 573-579 Market street, San Francisco. The shipment amounted in weight to 10,000 pounds, and is referred to as covering the collections for six weeks.

### LA ZACUALPA "PLANTATION" RESULTS.

SOME details of rubber yields of the La Zacualpa Plantation Co., on their Mexican estate, appeared in **THE INDIA RUBBER**



"CASTILLOA" RUBBER FROM "LA ZACUALPA."

[A shipment of 10,000 pounds on exhibition at the Goodyear Rubber Co.'s store in San Francisco.]

**WORLD** August 1, 1908 (page 374), the salient point being that in the collection of 40,600 pounds of rubber in 1907 the yield per tree, averaging slightly under 6 years old, was 2.52 ounces from each tapping. Most of the trees in question were tapped only once. A later report signed by O. H. Harrison, vice-president and resident director of the company, states that as an experiment some 7-year-old trees, 4 months after having yielded 3 ounces of rubber each, were subjected to "severe tapping" and gave from 8 to 11 ounces each of rubber as treated by the company's process, which is stated to be equal to 10 to 14 ounces of the rubber ordinarily obtained from *Castilloa*, and of the character upon which usual estimates of yield are based. The report points to the assurance of the company that *Castilloa* trees 6 or 7 years old will stand three tappings a year, giving a total of 6 ounces per tree. Mr. Harrison states that his com-

pany shipped on account of the 1907 dividends, in addition to the 40,600 pounds referred to already, 15,900 pounds from wild trees on the company's property, and neighboring lands of his own.

### RUBBER PLANTERS OF HAWAII.

THE second annual meeting of the Hawaiian Rubber Growers' Association (Honolulu, November 19) was well attended, and the members appeared enthusiastic over the results obtained up to date and the prospects for further development. Dr. Wilcox, in charge of the government experiment station, read a report on experiments conducted under his direction, which convinced him that rubber as now grown in the territory would yield an assured profit. The meeting was attended by a number of citizens other than rubber planters, who commented upon the desirability of having other industries than sugar in Hawaii, and the whole population seem to look forward to good results being derived from rubber.

Mr. F. T. P. Waterhouse, one of the members present, had published during the year a report of a visit to the rubber plantations of Ceylon, Malaya, and Java. Hugh Howell, an officer of the association, was referred to as the father of rubber planting in Hawaii. The original Ceará rubber trees planted by him about 10 years ago at Nahiku, on the island of Maui, are still alive and flourishing. The meeting wound up with a banquet.

The officers chosen for the ensuing year were Dr. E. C. Waterhouse, president; H. A. Baldwin, vice president; D. C. Lindsay, secretary and treasurer; Hugh Howell and F. L. Waldron, trustees. A report of the first meeting of the association appeared in **THE INDIA RUBBER WORLD** December 1, 1907 (page 87).

The interest of the Hawaiian territorial government in the subject of rubber culture is indicated by the fact that the personnel of the agricultural experiment station includes an official designated as "assistant in rubber investigation."

### NEW PLANTING COMPANY IN HAWAII.

A CORPORATION has been formed for planting rubber at Puna, on the island of Hawaii, known as the Pacific Development Co., Limited. The authorized capital is \$30,000, and its officers E. C. Brown, president; F. L. Waldron, vice president; B. von Damm, secretary and treasurer. They have planted to date 36,017 Ceará rubber trees on 113 acres and 8,700 *Hevea* on 47 acres. The company have also planted some pineapples and coconuts.

### RETIREMENT OF SIR DANIEL MORRIS.

SIR DANIEL MORRIS, K. C. M. G., D. SC., has retired from the post of imperial commissioner of agriculture for the British West Indies, which he had occupied with conspicuous success since August, 1898. Dr. Morris had previously been assistant director of the royal botanic gardens at Kew. He was the author of the "Cantor lectures" on india-rubber, before the Society of Arts in London, in April, 1898, a notable contribution to the literature of rubber, and in his official position encouraged the development of rubber culture in the West Indies. Sir Daniel has been succeeded by Dr. Francis Watts, c. m. g., late superintendent of agriculture for the Leeward islands.

### THE WEST INDIA COMMITTEE.

SIR HENRY KATZ DAVSON, recently elected chairman of the important West India Committee in London—after having been vice chairman since 1898, was born in Berbice, British Guiana, where his family in 1816 founded a successful business firm of which he is now the head. In 1845 Sir Henry entered the colonial service, in which he won distinction. He concerned himself with the development of British Guiana resources, and was a pioneer in the balata trade which, in that colony, had its beginning in Berbice, Sir Henry's native district. The West India Committee are stimulating the planting of rubber, and

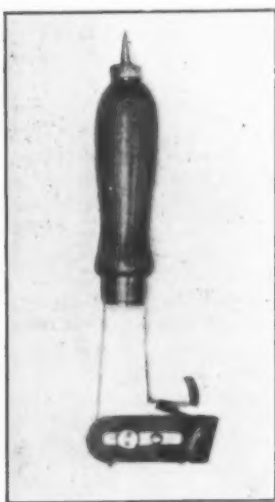
made a notable display at the London Rubber Exhibition last September.

Rubber of the *Castilloa* species was first planted on the island of Tobago about 20 years ago, by Captain Short, for shading cacao. Some of the trees are now 7 feet in girth. About 10 years ago the West India Rubber Plantation Syndicate, Limited, commenced planting *Castilloa* on the "Louis d'Or" estate, where they are now tapping. They use centrifugal coagulating process of Biffen and Howard, turning out, it is said, fine rubber.

On the island of Trinidad there are about 50 plantations of *Castilloa* rubber, from a few of which exports of rubber have been made.

#### TAPPING TOOL FOR "CASTILLOA."

The illustration shows a new type of tapping tool for use on *Castilloa* rubber trees. The blade is so arranged that it can be slipped up or down, away from the guard, enabling it to make either a deep or shallow cut. That is about all the description that is needed with the illustration. It is in use on the Mexican plantation of The German-American Coffee Co., of New York.



RUBBER TAPPING TOOL.

#### RUBBER PLANTING IN MEXICO.

Mr. JAMES C. HARVEY has resigned his connection with the Mexican Mutual Planters' Co. (Chicago) as general manager of "La Junta" plantation, in Vera Cruz, Mexico, to be able to devote more time to his private planting interests. [See THE INDIA RUBBER WORLD, February 1, 1909—page 184.]

Mr. C. E. Lyman, president and manager of Batavia Co., Inc. (Milwaukee, Wisconsin), while visiting Mexico recently, informed *The Mexican Herald* that experimental tappings just

made on their plantation in Oaxaca gave very satisfactory indications as to the yield of rubber to be expected when the trees are more mature. Mr. C. A. Coe, general manager of Mexican Development and Construction Co. (Oshkosh, Wisconsin), is reported by the same paper to have made similar statements regarding his company's plantation "El Modelo" in Oaxaca.

The annual meeting of the shareholders of Hacienda del Corte, Inc., owners of "Del Corte" rubber plantation in the state of Oaxaca, Mexico, will be held in Milwaukee, Wisconsin, on March 3.

#### PLANTING MORE RUBBER IN BORNEO.

New rubber planting enterprises continue to be formed in the territory of the British North Borneo Co., a chartered company having sovereign and territorial rights over the whole of the state of British North Borneo. This chartered company has granted concessions on favorable conditions to a number of companies for planting rubber, tobacco, and other crops. The rubber companies so formed to date are:

Sapong Rubber and Tobacco Estate, Limited. Formed April, 1905; offices, London; capital issued, £75,000; rubber planted, 750 acres.

British Borneo Para Rubber Co., Limited. Formed April, 1905; offices, Glasgow; capital issued, £30,000; rubber planted, 1,000 acres.

Tenom (Borneo) Rubber Co., Limited. Formed January, 1906; offices, Glasgow; capital subscribed, £43,000; rubber planted, 1,000 acres.

Manchester North Borneo Rubber Co., Limited. Formed February, 1906; offices, Manchester; capital subscribed, £54,000; rubber planted, 900 acres.

Langkon North Borneo Rubber Co., Limited. Formed March, 1906; offices, London; capital subscribed, £60,000; rubber planted, 600 acres.

Beaufort Borneo Rubber Co., Limited. Formed June, 1907; offices, London; capital subscribed, £61,000; rubber planted, 600 acres.

Sekong Rubber Co., Limited. Formed June, 1908; offices, London; capital allotted, £60,007; rubber planted, 300 acres.

North Borneo State Rubber, Limited. Formed November, 1908; offices, London; capital subscribed, £100,000; rubber planted, 200 acres.

The authorized capital of the eight companies is £760,000; the amount of capital issued, as shown above, £483,007. The acreage of rubber planted, at latest accounts, mostly *Hevea*, was 5,350. Some of these companies are planting more or less tobacco.

#### YIELDS OF PLANTED "HEVEA" RUBBER.

TEN rubber plantations in Ceylon and Malaya report officially the yields, for three calendar years past, indicated in the following table. The companies named are among the largest producers, but the choice of these ten has been made for no other reason than that complete figures relating to them happen to be in hand at the moment of this writing. Presumably other companies have made corresponding progress in the rate of yield, and the management of the companies in this list would appear to be justified in arranging their affairs in the expectation that when more of their trees are tapped they will obtain proportionately larger yields.

Anglo-Malay Rubber Co.....	91,713	224,150	a349,450
Linggi Plantations .....	17,228	110,740	271,500
Damansara (Selangor) Rubber Co... 11,904	57,376	124,710	
Consolidated Malay Rubber Estates. 32,623	63,615	111,585	
Selangor Rubber Co.....	70,577	120,524	b186,096
Lanadron Rubber Estates.....	—	97,193	181,156
Sumatra Para Rubber Plantations... 13,419	43,852	64,030	
Malacca Rubber Plantations.....	14,500	9,000	46,534
Vallambrosa Rubber Co.....	156,922	222,459	262,459
P. P. K. Ceylon Rubber Estates.....	8,305	14,800	29,000

Total (ten companies).....417,191 963,809 1,626,500

a—Including 2,456 pounds held over from last year.  
b—Including 1,920 pounds "rambong" rubber.

#### RUBBER PLANTING MISCELLANY.

THE Federated Malay States, which are under British control, do not embrace all the rubber plantations in Malaya. In the native governed state of Kelantan about 22,000 acres have been planted to rubber. Much planting has been done also in the native state of Johore, including the "Lanadron" estate, owned by Pears's soap interests, and already largely productive. Account must be taken, also, of the plantations in the Straits Settlements, a British colony distinct from the Federated Malay States.

The samples of plantation rubber from Ceylon shown at the Ceylon court at the Olympia rubber exhibition last fall were transferred to the Colonial Exhibition at Liverpool, after which they were sold, in spite of having been tossed about, packed and unpacked time and again, at prices up to 5s. 2d. for worm crepe, 5s. 3d. for sheet, and 5s. 5d. for biscuits. The *Ceylon Observer's* London correspondent would not be surprised, in the face of these results, if the Ceylon exhibitors should turn out to have netted a direct profit on their participation in the Olympia show.

#### NEW "SAN MIGUEL" INDICTMENTS.

SOME months ago the United States grand jury at Chicago returned indictments against two officials of the San Miguel Plantation Co., upon an alleged charge of using the mails to defraud. The parties referred to were Talton Embry, vice president, and Hiram E. Rose, secretary, of the company. [See THE INDIA RUBBER WORLD, September 1, 1908—page 403.] Later, in the United States district court at Chicago, demurrers in these cases were filed, and on December 11, 1908, sustained by the court. New indictments were then found against Embry and Rose, upon the same charge, and also against Richard Walsh, president of the San Miguel company, the whole being docketed as Case No. 4,132 in the district court. Following the new indictments bench warrants were issued for the arrest of the defendants, and appearance bonds given by each. No further action had been taken in the case at last accounts.

## Some India-Rubber Interests in Europe.

### DUNLOP RUBBER FACTORY IN JAPAN.

THE shareholders of Dunlop Pneumatic Tyre Co., Limited, at a special meeting (London, February 1), approved of a proposition of their directors to become interested in a rubber factory in Japan, of which an intimation occurred in the address by Chairman du Cros at the last annual meeting of the Dunlop Rubber Co., Limited. [See THE INDIA RUBBER WORLD, February 1, 1909—page 171.] The Dunlop interests have had no direct representation in the Orient hitherto, except a selling agency for Japan, since 1906—the firm of H. & W. Greer. The Dunlops have invested no capital in that concern, however, beyond a stock of bicycle tires. The firm of Greer have now brought forward a plan to organize a rubber factory in Japan, capitalized at £81,000 [= \$394,186.50], of which the Dunlop company will receive £15,000 [= \$72,997.50] in full paid preference shares for their trade-marks and also a royalty in perpetuity on all tires manufactured by the new company. A director in the Dunlop company will have a seat on the board.

### OTHER DUNLOP INTERESTS.

THE directors of the Dunlop Rubber Co., Limited, who have not been paid fees from the funds of that company hitherto, but have relied for compensation upon Dunlop Pneumatic Tyre Co., Limited, will receive hereafter fees aggregating £2,000 a year, and such further sums as the company may in future determine in general meeting.

It would appear that not all the branches of the Dunlop TIRE COMPANY are worked so profitably as the parent company, whose large dividends have been recently reported in THE INDIA RUBBER WORLD. The report of the Société Française des Pneumatiques Dunlop, Limited, for the financial year ending July 31, 1908, showed a net loss of £11,744, but on account of the balance carried over from the past the directors recommended a dividend of 6 per cent. on the preference shares, leaving a balance of £13,851 to be carried to the new account.

### RUSSIA.

THE Russian-American India-Rubber Co., "Trëugolnik," of St. Petersburg, announce the complete merger with them of the important house of Leopold Neuscheller, of the same city, the assets and liabilities being assumed in full. The general management of the sales department under the new arrangement has been entrusted to H. van Gilse von der Pals. The community of interest of the two firms was mentioned in THE INDIA RUBBER WORLD September 1, 1908, (page 399), and also the addition to the firm name of Russian-American company of "Trëugolnik," a Russian word for "triangle," or "three-cornered," and descriptive of the company's long used trade mark.

The Gummiwaren-Fabrik "Russia," Gebrüder Freysinger ("Russia" Rubber Goods Factory, Freysinger Brothers), at Riga-Sassenhof, announce that engineer Friedrich Krauss has by mutual consent retired as a general partner of the firm as from January 1 last, but will continue his connection with the firm as a special partner. Power of attorney was granted under the same date to Paul Vieweger, who has been in the employ of the firm for many years.

### GERMANY.

THE retirement is announced of Adolf Prinzhorn from active service in the Continental Caoutchouc- und Guttapercha-Compagnie (Hanover), of which he has been for many years managing director. Herr Lüdecke also retired from active service, but both gentlemen will continue to give the firm the benefit of their experience. Herr Prinzhorn recently made an extensive visit to the rubber planting regions of the Far East. [See THE INDIA RUBBER WORLD, November 1, 1908—page 72.]

The name of the Hannoversche Gummiwaren- und Balata-

Treibriemen-Fabrik, Adolf Prestien, has been changed to Hannoversche Gummiwaren- und Textilriemen-Fabrik, Adolf Prestien (Hanover Rubber Goods and Woven Belting Works). The former partnership has been dissolved, through the retirement of Ulrich Struck and Heinrich Augustin, leaving Adolf Prestien sole owner.

The senior member of the firm of S. Herz, rubber goods manufacturers of Berlin, Herr Wilhelm Herz, already *Geheimer Kommerzienrat*, has been honored by the Kaiser with the decoration of the Order of the Red Eagle, second class, with the Star. Mr. Herz is one of the oldest men in the German rubber trade, but although he has reached the age of 86, he still shows untiring energy, being actively engaged in the management of the works, and holding even now the office of president of the Berlin Chamber of Commerce.

Thüringer Schlauchweberei und Gummiwerk G. m. C. H., with 410,000 marks [= \$97,580] capital, has been organized for the manufacture at Waltershausen of linen and rubber hose, mechanical rubber goods, and pneumatic and solid tires, by Fritz Kestner and Ludwig Wulf, the latter sometime connected with the rubber factory of B. Polack, also in Waltershausen.

Mannheimer Gummi-, Guttapercha- und Asbest-Fabrik, A. G. (Mannheim) have had another good year, and the dividend is 10 per cent., the same as in the preceding year.

### RUBBER WORKS MOVED FROM BERLIN.

VEREINIGTE Berliner-Frankfurter Gummiwaren-Fabriken have transferred their Berlin works to Lichterfelde-Ost, Steinstrasse, 3, where new works have been completed and a modern machinery plant installed. For the convenience of customers in the city an office and warehouse have been opened in Berlin near Potsdamer platz. The Berlin works, on the river Spree, were among the oldest in the rubber trade in Germany, having been established in 1849 by an Englishman named Elliott. The business of the company has been largely developed under the management of Mr. Emil Spannagel, who has been in charge for the past fifteen years. The company have factories also at Glenhausen and at Grottau (Bohemia).

### AUSTRIA.

VEREINIGTE Gummiwaren-Fabriken, Harburg-Wien, vormals Menier-J. N. Reithoffer, at their Vienna headquarters, have granted joint power of attorney to Karl Reiser, chief cashier at the Wimpassing factory, in succession to Franz Stingle, imperial counselor.

### PROFITS OF GEORGE ANGUS & CO.

THE twenty-first annual report of George Angus & Co., Limited, manufacturers of leather belting, balata, and cotton beltings, and woven hose at Newcastle-on-Tyne and Bentham, Lancaster, shows a net profit of £33,280 16s. 4d. [= \$161,961.10]. Dividends 5 per cent. on preference and 10 per cent. on ordinary shares, with 4 per cent. on mortgage debenture stock. Balance carried forward £36,458 5s. 10d., practically the same as last year. From 1899 to the present the annual dividend on ordinary has been 10 per cent., with the exception of 1901, 1904, 1905 and 1906, in which 12½ per cent. was paid.

### GREAT BRITAIN.

MACLAREN & SONS, Limited, registered in London December 1, 1908, with £42,000 capital (of which £12,000 in preference shares), succeed to the business of Maclaren & Sons, publishers of *The India Rubber Journal* and other trade journals. Directors: W. F. de Bois Maclaren, F. Copeman, J. Allison, J. H. Macadam and Herbert Wright.

The voluntary liquidation is reported of Elastes Co., Limited, an English company manufacturing "Elastes," a tire filler.

The American Hard Rubber Co. have removed their London agency from the premises occupied for the past eight years to larger quarters in Basma House, 13A, Fore street, E. C.





## The Editor's Book Table.

**TWENTIETH CENTURY IMPRESSIONS OF BRITISH MALAYA:** Its History, People, Commerce, Industries, and Resources. Abridged Edition. Editor in Chief, Arnold Wright (London). Assistant Editor, H. A. Cartwright (Singapore). London: Lloyd's Greater Britain Publishing Co., Limited. 1908. [Cloth. Large 4to. Pp. 285. Price, 12s. 6d.]

**F**EW of the oversea possessions of the British crown, outside of India and the great self-governing colonies, can compare in interest and importance with the Straits Settlements—the central point of which is Singapore—and the related Malay States under British rule. British Malaya, indeed, provides to-day perhaps the most remarkable illustration throughout the empire of the remarkable national genius of England for colonization. Only a few decades ago the area covered by the Straits Settlements was dear to the hearts of the writers of boys' stories. It was the region of pirate junks, of marauding tribes who shared the primeval forests with the hardly more wild man-eating animals. To-day life in no part of the world is nowhere more orderly, life nowhere safer; systematic and efficient government prevails, and wealth is being amassed at a rate almost fabulous, carrying with it the introduction of the conveniences and elegances of the best civilization that the world affords.

Not that the whole scene has been changed; far from it. The original inhabitants remain, with their costumes, manners, religions, and outward forms of government. But a new element has entered, and it controls—quietly, and behind the scenes, but none the less effectively. His Highness, Sir Ahmad Maatharn Shah'ibini Almerhum Ali, K. C. M. G., the Sultan of Pahang, for example, may rule the people of his district with all the pomp and picturesque display of his ancestors, but the local British "resident" has the last word when a question of real moment is to be decided. The Chinaman, too, has appeared on the scene, as is evident from the mercantile advertisements in the *Kuala Lumpur* and other daily newspapers, or from every page of the city directory of Singapore, but the Anglo-Saxon is in control.

So much by way of suggestion of the breadth of the subject. As for the book, its mere appearance, even before one has a glance at the contents, commands respect and invites confidence. It would be hard to suggest a feature of life in the region to which it relates that has been overlooked by the compilers, who in most cases have had the assistance of collaborators of reputation as specialists. There is history, description of the country, and an account of the native peoples. Everything seems to have been covered, and every page bears the impress of painstaking, and that suggests accuracy. On this point we may quote *The Malay Mail*, published on the ground, so to speak, as commending the book in the latter respect, especially. The number of pages mentioned above gives no adequate idea of the extent of the work, as the typographical style admits of four times as much reading matter as one is accustomed nowadays to find on a page, and the effect is pleasing. And there must be a thousand attractive and informing illustrations.

Of course planting is dealt with, and rubber planting. Mr. J. B. Carruthers, director of agriculture in the Federated Malay States, and Mr. Francis Crosbie Roles, editor of *The Times of Ceylon*, write on rubber, and the illustrations of plantation rubber being prepared by modern machinery, under scientific methods, compare strikingly with some forms of native handiwork pictured on other pages.

This book is described on its title page as an "abridged edition," which it is. The first imprint was a sumptuous subscription work embellished with a vast number of portraits, which have been omitted in printing the work for wider distribution. Likewise biographies of local and present celebrities have been dispensed. But even "abridged" the book is a wonder of fulness. As a collection of pictures alone the book is worth its price.

**"THE ARGOSY" HANDBOOK OF BRITISH GUIANA AND DIRECTORY** for 1909. Georgetown: The Argosy Co., Limited. 1909. [Cloth. 8vo. Pp. ix + 352. Price, \$1.20.]

FEW corners of the British empire are more remote from the center than little British Guiana, the sole British possession in South America. Yet one who has the privilege of reading the well-edited Georgetown newspaper, *The Argosy*, will gain the impression that the apparent isolation of the colonists by no means keeps them out of touch with the mother country, or with the world at large. This impression is strengthened by a look over the very complete handbook which the proprietors of this newspaper have brought out this year for the first time. A glance through its pages reminds one of England in many ways; in fact, British Guiana life is evidently an England in miniature, judging from the "institutions" listed in this book. British Guiana is of importance to the rubber trade as a producer on a continually growing scale of balata, and attention is being given lately to the native rubber resources of the colony and also to rubber culture.

**PHYSIOLOGISCHE GRUNDLAGEN ZUR BEWERTUNG DER ZAPFMETHODEN** bei Kautschukbäumen. Nach einigen Versuchen an *Hevea Brasiliensis*. Von Prof. Dr. Hans Fitting. (Beihfte zum *Tropenpflanzer*, 1909, No. 1.) Berlin. [8vo. Pp. 43.]

THIS is a very comprehensive study of methods of tapping rubber trees of the most important species, following considerations on the physiology of the plants and particularly of the bark formation, and the conditions favorable to the flow of latex. The studies were carried out at the botanical gardens at Buitenzorg, Java. There are several illustrations and copious references to what has been published on the subject hitherto. The author treats of methods or systems, rather than of particular types of tapping knives.

### IN CURRENT PERIODICALS.

**Die Zukunft des Parakautschuks am Amazonas.** By Dr. S. H. Berkhout. [An answer to a review of a German consular report by D. Sandmann entitled "Die Gewinnung des Parakautschuks am Amazonas und seine Zukunft," in an earlier number of the same periodical.]—*Der Tropenpflanzer*, Berlin. (XIII-2 Feb. '09.) Pp. 53-68.  
**Observations sur le Manihot de Jéquié (*Manihot dichotoma*, Ule).** By Léon Mosselman du Chenoy.—*Journal d'Agriculture Tropicale*, Paris. VIII-90 (Dec. 31, '08). Pp. 357-360.

### RUBBER IN THE "GREAT LONE LAND."

**I**T is surprising to note the extent to which the india-rubber dealer has made his invasion up into what, but a few years since, was considered the 'great lone land of Canada'—the old provinces of Manitoba, Saskatchewan, and Alberta," the returning traveler remarked.

"Up at North Battleford, where, hardly over twenty years ago 'Riel's rebellion' was fought, the business in rubber shoes is most flourishing, for the mud of these prairie towns is so bad that the people must buy or perish, well nigh. And there, as table-center in the big hotel, rubber plants thrive in the northland.

"At Lethbridge, last summer, they had sixteen days of successive rain, and so rubber coats, umbrellas, etc., were in demand. Even off at Indian Head, now, one can get 'rubber' collars in the drygoods stores, these at 20 cents apiece.

"Then interesting, in the barracks of the Royal Northwest Mounted Police, at Regina, it is to see at the end of each of these cavaliers' beds a splendid rubber blanket used on their long, hard rides after fugitives in the North. Against the wall beside each bed, too, there is a yellow slicker, serving as a raincoat which the rain cannot get through. And so, since these men have 'beats' extending up to the very Arctic itself, the rubber invasion is carried to the shores of that frozen sea."

F. J. K.

## THE RUBBER TRADE AT AKRON.

BY A RESIDENT CORRESPONDENT.

THE widely circulated estimate of \$15,000,000 as the probable value of the automobile tire output of the Akron rubber factories during the current year is regarded by local authorities as far too small. Some go so far as to say that the number of tires manufactured here during 1909 will fall little short of the million mark. At any rate manufacturers are making preparations for the largest sales of any year in their history. Out-of-town branches are being stocked up, and many carloads of tires are shipped every month.

The preparations of The B. F. Goodrich Co. for the New York tire trade serve as a good indication of what is expected. Their new twelve story building at Broadway and Fifty-seventh street, which is intended to be in readiness by May 1, will be devoted to tires alone, their mechanical goods trade being continued at No. 66 Reade street.

The Goodrich company have defined a campaign of improvement which will result ultimately in replacing nearly all the old buildings of their factory with an almost solid quadrangle of six story structures of reinforced concrete construction. Two sides of this quadrangle have been completed. A building has just been started which will form a part of a third side in the rear, and plans are under way in the office of the engineer for a building 300 feet long which will form the fourth side, extending from a point near the general offices to the canal in the rear. To erect this last building it will be necessary to tear down several old brick buildings three and four stories in height. The new building will provide, on the same ground space, three times the present floor capacity. The last building to be completed, on the front side of the quadrangle is now being equipped with machinery for the manufacture of automobile tires.

The B. F. Goodrich Co. are putting on the market a new golf ball with a white gutta-percha cover to be sold under the name, "Haskell White Streak." The price will be 50 per cent. higher than that customarily charged for golf balls. The white covers, designed to do away with the troubles caused by the wearing of paint on the black cover, is forced into the thread of the center. A perfect balance and uniformity is claimed for the new product.

The boot and shoe department of the Goodrich company is unusually active at the present time. Though the normal output of the plant is about 5,000 pairs a day, it ran up to 9,300 pairs during the middle of February.

The Diamond Rubber Co. have developed their insulated wire and cable department to an extent which enables them now to enter the market on a large scale. Wire drawing, braiding and stranding machines have been installed, and 165 men, many of them brought from the other factories, have been put to work in this department. The position of superintendent of this department is held by Mr. O. F. Houben, widely known as an expert in the insulated wire manufacture, and who had charge of the contract for laying a rubber insulated cable in the Red sea, where peculiar conditions seem to point to india-rubber as preferable to gutta-percha for insulation purposes.

An official of The Diamond Rubber Co. has given your correspondent authority to say positively that there is no truth in the reports that they intend to take up the manufacture of boots and shoes. If such plans do exist they are so far in embryo and confined to the secret councils of the company.

The Diamond Rubber Co. were the only Akron tire manufacturers represented at the Toronto automobile show, beginning on February 18, Mr. N. E. Oliver being their representative there. On March 1 the Diamond company will open a store at No. 602 Pike street, Seattle, Washington, which will be subsidiary to their San Francisco branch. They have opened also a branch at Omaha, Nebraska, in charge of P. Karbaugh.

Akron tires were more in evidence at the late Chicago automobile show than in any previous exhibition in that city. The

Diamond Rubber Co., the Firestone Tire and Rubber Co. (particularly for tires for commercial vehicles), The B. F. Goodrich Co., the Swinehart Clincher Tire and Rubber Co., the Motz Clincher Tire and Rubber Co., and the Consolidated Rubber Tire Co. were the Akron manufacturers represented, most of them by important members of their staffs.

Since the establishment of the Diamond Rubber Co.'s rubber covered wire and cable department, the only rubber product not made in Akron is rubber clothing. For a long time boots and shoes as a product of the rubber manufacture were unknown here, but the extensive departure in that line by the Goodrich company has made Akron a producing center of such goods of importance. Rubber clothing is not considered here on account of the fact that this class of goods is almost always made by some concern devoted exclusively to its production, and it has not been classed among general rubber products.

The Firestone Tire and Rubber Co. have located a store and branch office at Nos. 1918-1920 Euclid avenue, Cleveland, where their products will be handled after March 1.

The faculty of Buchtel College, which is located in this city, announce a course in rubber chemistry, to be inaugurated beginning with the new college year in September. This will be unique among college and university courses. It is an outgrowth of a demand for instruction in the chemistry of india-rubber by young men who are desirous of entering the industry in the various factories in this city. The course will cover a period of two years, two years' work in elementary chemistry being required before the student may enter. The first year will consist of instruction in the analysis of samples of rubber, the study of the various rubber solvents and other simpler phases of the subject. In the second year the students will be introduced to the more intricate branches of the study. One student, Yutuka Tanaka, of Tokio, Japan, has already enrolled for the course with the intention of making it the foundation of an expert knowledge of the industry which he intends to take with him to his native country. The course will be taught in a new chemical laboratory now nearing completion.

## THE RUBBER TRADE IN SAN FRANCISCO.

BY A RESIDENT CORRESPONDENT.

THE past month has been productive of little but rain, and has the rain has been almost continuous there has been little time or inclination for branching out in new enterprises or making business changes. People in the rubber business have been supplying what orders they had to fill at the present, and taking care of what orders come in by mail, but they have not been out after new business very hard. There has been such a steady season of nothing but rain that everybody is convinced that as soon as the sun does begin to come out for a little while there will be a respectable season of fine weather and that then business will blossom out like the flowers of spring. The wet weather has held things back, but it will not take long to make up for lost time. Taking the city and coast as a whole, conditions are very favorable. In San Francisco business activity has increased to a marked degree. There is work of all kinds in progress and there is employment for large numbers of men. Out through the interior the rains have checked work of nearly all kinds, and business has not been very active, but there is a general feeling of prosperity, because it is certain that the coming year will bring out crops that will make this one of the most flourishing years which California has ever known.

The Phoenix Rubber Co. has been incorporated and the new company is settling down now to reap the benefits of an active business and a promising future. Mr. Kanzee states that January was the biggest month they have had, in spite of the rains, and that February is looking up well also. He has no doubt but that the future will be bright. Business has been especially good on automobile tires.

Mr. Grant, one of the old-time and well-known salesmen for the Gorham Rubber Co., severed his connection with that firm on the first of February, and he is now on his way to New York, where his object is to secure some new rubber lines for himself, and it is rumored that he will probably become associated with the Eccles & Smith Co., of San Francisco.

Mr. H. C. Norton, of the Pacific Coast Rubber Co., lately visited Seattle, Washington, where his firm has a branch store.

Mr. Bushnell reports that conditions have been quiet but are now looking very favorable to the rubber interests.

Mr. W. J. Gorham, of the Gordon Rubber Co., has returned from his trip to Akron, Ohio, to Los Angeles, where he will stay with the company's local branch for about a month, and then come back to the main store in San Francisco. Mr. Sargent, of the San Francisco office, states that, while the rains have caused quite a set-back to general business in rubber, they have been selling a lot of rubber boots and shoes.

The new branch store of the Diamond Rubber Co., at No. 602 East Pike street, Seattle, is now fully equipped. A. M. Olsen, traveling man for the San Francisco branch of the Diamond company, whom report had it that he had joined the navy recently, is still traveling for the Diamond Company.

Mr. C. H. Chase, manager for the Bowers Rubber Works, reports from the San Francisco headquarters that his company is well pleased by the acceptance of 12,000 feet of fire hose by the Los Angeles fire department. This department put the fire hose through a test more severe than the government or anybody else demands, and yet it passed in good shape.

Mr. A. T. Dunbar, of the Revere Rubber Co's branch, is waiting for the spring to open up the big business which is bound to come as soon as people get started.

R. H. Pease, president of the Goodyear Rubber Co., has returned from the company's branch store at Portland, Oregon, where he reports having found conditions very much better than they were at this time a year ago. There have been, he says, big storms throughout the northwest, as well as in California.

Consequently the jobbing and retail trade both have disposed of a good deal of stock, which ought to result in a big business for next fall. As soon as the weather settles there will be a good belting, packing and hose business. There will be plenty of

water for working the mines, and the reservoirs are being well filled and this should improve the sale of garden hose during the spring. The great loss in certain parts of the state owing to floods, has been more than offset to the state at large on account of the good that will come from having so much rain. Mr. Pease and his son, R. H., Jr., treasurer of the company, expect to leave in the middle of March for New York, where they will remain for a month or two.

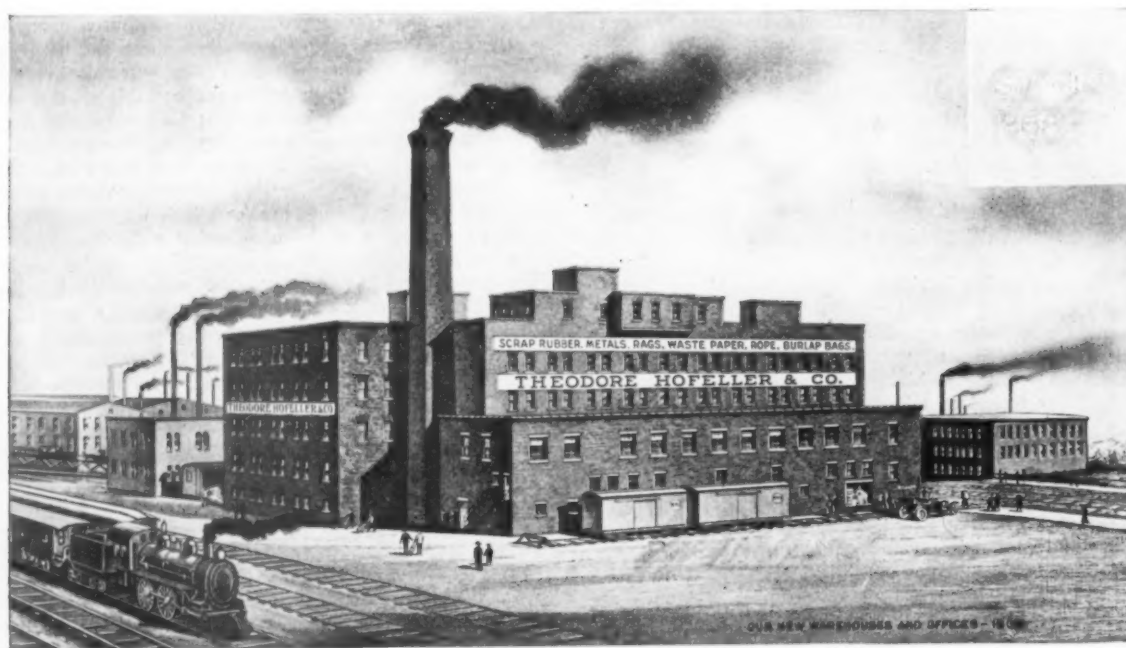
The Gutta-Percha and Rubber Mfg. Co. state that conditions are much brighter on the coast than they have been for a long time, and that business will begin to open up probably about the first of March after the rains.

The Firestone Tire and Rubber Co. has opened a new factory branch in Los Angeles.

Seeley, Van Zandt & Crackel, at No. 938 South Main street, Los Angeles, report a very flourishing business in the automobile supply line. They have just received a large new shipment of "Continental tires."

#### THE NEW HOFELLER PREMISES.

THE new six-story warehouse of Theodore Hofeller & Co., Buffalo, is probably the largest and most elaborately equipped waste rubber plant in the world. The first floor is devoted to receiving and shipping, is equipped with three side car doors, and affords facilities for handling large quantities of scrap. An elaborate weighing system and a vast number of bins marked to indicate the contents of each are the features of the second floor, while the third floor is used for baling, which is done by three large presses. The sorting and packing are done on the fourth floor, which also contains coat rooms and wash-rooms for the employes. The growth of the scope of the business of Messrs. Hofeller has been continuous since its formation, 28 years ago, and a comparison of the new warehouse and offices—illustrated on this page—with the original premises is the most eloquent proof that could be desired of the rate of development of the waste rubber trade in the United States within the history of this company.



NEW WASTE RUBBER WAREHOUSES OF THEODORE HOFELLER & CO.



## New Rubber Goods in the Market.

### FLEXIBLE SUCTION CUP SHOE.

THE new article in footwear illustrated here is intended for all outdoor and indoor athletics, including golf, football, yachting and the like. In indoor sports the projections give a secure grip and hold. Being hollow, they give a resilient springing tread which combines speed with surefootedness. For these reasons this shoe is referred to as being sure and quicker than spiked shoes, without the danger of injury from spikes. In indoor use this shoe will not slip on polished or wet floors.



FLEXIBLE SUCTION CUP SHOE.

The soles are studded with individual suction cups, so that when the sole strikes the floor the weight of the wearer causes a vacuum in each cup, with suction sufficient to give absolute security against slipping. These shoes also are recommended for wearing quality, the reason of the long wear being in the quality of the rubber used and superior construction of the sole. The shoes are Goodyear welt, with soles cemented and sewed. The suction cup shoe has been adopted by several leading houses in the sporting shoe trade, who are featuring it this season. [The Flexible Rubber Goods Co., Winsted, Connecticut.]

### THE GOODYEAR AIR BOTTLE.

A DEVICE, which has a close relation to rubber tires, and which depends for its own usefulness upon the employment in it of rubber tubing, is the Goodyear Air Bottle, illustrated on this page.



GOODYEAR AIR BOTTLE, FOR TIRES.

A steel bottle is charged with pure air—not gas. When it is desired to inflate a tire, it is necessary only to attach the rubber tube from the bottle to the tire, open a valve, and allow the tire to fill to the pressure required. Not only is there no labor re-

quired, but there are no complicated parts to get out of order, and the tire can be brought up just to the right pressure. The cost of a bottle filled with air is \$15, and this is intended to last for two years, after which it may be refilled at slight cost. [The Goodyear Tire and Rubber Co., Akron, Ohio.]

### "ALPHA" STEERING WHEEL GRIP.

THE makers of the widely-known "Alpha" brand of rubber goods have been encouraged by their success in the manufacture of red rubber inner tubes for tires to go further into the field of automobile accessories, with the result that they have brought out

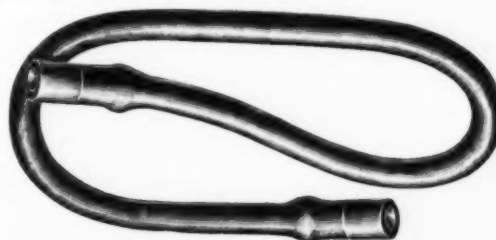


"ALPHA" STEERING WHEEL GRIP.

something entirely new in the way of a Steering Wheel Grip for automobiles and motor boats, the design of which is indicated in the illustration. This article is made in either black or red rubber, and is referred to as indispensable for safety and thorough control. [Parker, Stearns & Co., New York.]

### "KANTLEEK" AUTO LAMP CONNECTION.

THE Seamless Rubber Co. (New Haven, Connecticut), who have come into the market with a considerable line of motoring accessories, starting with their "Kantleek" inner tubes, made in red or gray rubber for any standard type of tires, now include in their list "Nearkid" rubber driving gloves, gas main bags to withstand the action of acetylene gas, red auto tubing, lamp connections, outside and inside blowout patches, repair and vulcaniz-



"KANTLEEK" AUTO LAMP CONNECTION.

ing cement, and an extensive line of automobile horn bulbs. Not the least in importance in this connection is the item of lamp connections. It is not safe to use cheap connections, and those who have used the white rubber kind will doubtless be ready to use something else. The stock used in the "Kantleek" connections is supplied in colors and specially prepared with a view to withstanding the action of acetylene gas. They are made with rolled ends or sockets in order that they may be easily attached.

**THE RING LAWN SPRINKLER.**

AN improvement over the Ring Lawn Sprinkler manufactured lately by W. D. Allen Manufacturing Co. (Chicago), has been brought out by them for the 1909 trade, the general appearance of the same being indicated in the accompanying illustration. This sprinkler gives a finely divided but well defined spray which presents a very attractive appearance on the lawn. It is referred to



THE RING LAWN SPRINKLER.

as being in wide demand among rubber houses and jobbers generally. The Allen firm are referred to as manufacturing 47 varieties of lawn sprinkling devices, and they add to the list every season. Not only are they the largest manufacturers in the world of lawn sprinklers, but they claim to make more sprinklers than all other houses in the trade combined. Their goods are in good demand in several foreign countries.

**AN ORNAMENTAL RUBBER SHOE SOLE.**

IN recent years an entirely new line of invention has been developed in the way of the ornamentation of shoe soles, something which formerly does not appear to have been thought of. The



ORNAMENTAL SHOE SOLE.

accompanying cut refers to an ornamental design for the sole of a shoe for which a patent has been granted to Francis R. McKenna, assignor to Bourn Rubber Co., Providence, Rhode Island.

**THE KENDALL HAT PROTECTOR.**

A VERY useful and practical article for use of ladies is the Kendall hat protector, for guarding headwear from rain, dust and dampness. It is a recent invention by a lady who is understood to have built up a large trade already. This protector,



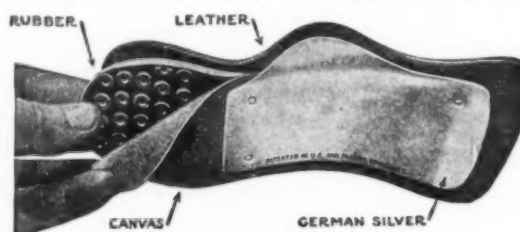
KENDALL HAT PROTECTOR.

made of crepe de chine, silk or satin, in various colors and rubberized, may be carried in a neat little package in a handbag. It is serviceable when one is caught in a shower, and may be equally serviceable when one is automobiling or when on the train or at the seashore. It has been referred to as a good substitute for an umbrella for protecting a lady's hat, it being supposed that a

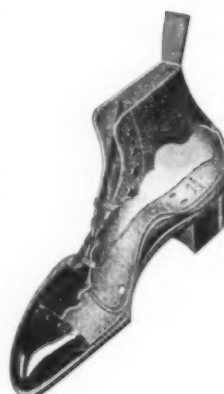
raincoat will be worn for the remainder of the costume. [The Kendall Hat Protector Co., No. 45 West Thirty-fourth street, New York.]

**ARCH SUPPORT AND HEEL CUSHION.**

THE invention described as the Tread-air heel cushion has been described already in these pages. These are intended to be worn inside the shoe, instead of using the ordinary rubber heel. The same



ARCH SUPPORT AND HEEL CUSHION.



SHOE SHOWING ARCH.

the whole occupies in the shoe. [Foster Rubber Co., No. 170 Summer street, Boston.]

manufacturers are now offering a foot rest, or arch support, to meet the demand for something in this line now referred to as being very widespread. In answer to the suggestion that nature did not provide the human foot with an artificial support, it is pointed out that neither did nature provide leather shoes or stone pavements, and that tired feet are the result of modern conditions under which a properly designed support may become very useful. One of the cuts herewith indicates the relation to each other of the various materials used in the Foster combination, the heel cushion being made of leather, rubber and canvas, and the foot support of German silver. A second cut shows the position which

**THE "PU-REA-TA" SYRINGE.**

THE syringe illustrated on this page, which is the subject of a recent United States patent, differs from other types on the market in that, while adapted to use for liquid injections, it may be employed also for applying medicaments in the form of powders. As shown in the illustration it includes a powder tube, which is removable in case it is desired to transmit water or any other fluid through the syringe. Where fluids are used, the "Pu-rea-ta" does not throw a solid stream, but a spray. [O. Katzenberger, patentee, No. 301 Barrera street, San Antonio, Texas.]

"PU-REA-TA"  
SYRINGE.

WHILE the Brazilian rubber tree (*Hevea Brasiliensis*) in its native habitat is reported to yield uniformly three seeded fruits *Hevea* trees planted in the Far East appear frequently to show abnormalities in this respect. Director Ridley writes in the *Agricultural Bulletin*: "We have met with fruit of *Hevea* with two, four and five seeds. Some trees are very irregular in this matter, and one tree in the Singapore botanic gardens produced a large proportion of four and five seeded capsules on several occasions."

## News of the American Rubber Trade.

### RUBBER FACTORY INSURANCE.

AT the annual meeting of The Rubber Manufacturers' Mutual Insurance Co. of Boston, on January 27, the financial statement presented showed the amount at risk on December 31, 1908, to be \$53,257,326. Mr. B. G. Work, president of the B. F. Goodrich Co. (Akron, Ohio), was added to the board of directors, this being the first time that a place on the board has been filled outside of New England, except that the Hodgman Rubber Co., of New York, have always been represented on the board, Mr. George B. Hodgman, president of that company, now holding a seat. The officers were reelected: Arthur H. Low, president; Benjamin Taft, vice president, secretary and treasurer; F. W. Moses, assistant secretary and assistant treasurer, and W. E. Brophy, assistant secretary. The Rubber Manufacturers' Mutual Insurance Co. was incorporated in Massachusetts November 4, 1884, and had risks outstanding on December 1, 1885, of \$2,478,671, since which time its success and its growth have been continuous.

### THE GOODRICH COMPANY IN ENGLAND.

ON January 26 was registered at Somerset house The B. F. Goodrich Co., Limited, to take over the business in the rubber trade carried on hitherto in London by The B. F. Goodrich Co., of Akron, Ohio. The directors are Bertram George Work, Henry E. Raymond, William A. Folger, Charles B. Raymond and A. E. Lumsden. The capital mentioned is nominal £100 [= \$486.65].

### NEW ENGLAND RUBBER CLUB AND THE NAVY.

THE Mid-winter Dinner of the New England Rubber Club, which ordinarily occurs in February, has been delayed to await the arrival of the American battleships that have just returned from the world cruise. The programme for the dinner, which occurs on March 22 at the Algonquin Club, Boston, includes speaking by naval officers, notably captains of certain of the battleships, Commodore Swift of the Charlestown navy yard, and others. The dinner is to be a naval dinner and in view of the interest that we have in the American fleet's wonderful journey, promises much.

### "I WANT 670 COLUMBUS."

TRENTON Rubber Manufacturing Co. (Trenton, New Jersey) have established a branch store in New York city, at No. 1997 Broadway. The location of the new house has been brought to the notice of the company's New York customers, among other methods, by the distribution of handsome blotter pads on the back of which is the representation of a pretty girl telephoning "I want 670 Columbus," while on the other side may be seen the features of the original Christopher Columbus—the expression having reference to the telephone number of the Trenton company's new store.

### THE NEW KERITE COMPANY.

THE business style Kerite Insulated Wire and Cable Co., is being introduced in the insulated wire trade, a company by this name having been incorporated in New York state by W. R. Brixey. The business is the manufacture of wires and cable insulated with "Kerite" compounds, at Seymour, Connecticut, originally by the late Austin G. Day. Mr. Brixey was long associated with Mr. Day, and upon the latter's death succeeded to the business. The headquarters of the Kerite company are at No. 30 Church street, New York. Watson Insulated Wire Co. (Chicago) are Western representatives.

### THE VICTOR RUBBER CO. RESUME.

THE Victor Rubber Co. (Springfield, Ohio), whose plant was burned some time ago [see THE INDIA RUBBER WORLD, Septem-

ber 1, 1908—page 416] advise that they have made good progress in getting into operation again. It was only 135 working days from the time of breaking ground until they were ready to start their new engines. The new plant consists of three concrete buildings, so arranged and divided by fire walls as to make another serious disaster by fire practically impossible. It is stated that their tire department has been increased in capacity about 50 per cent., and their mechanical department more than 100 per cent.

### TO MAKE RUBBER TIRES IN NEW HAMPSHIRE.

RUBBER Step Manufacturing Co., originally of Boston and since 1892 at Exeter, New Hampshire, manufacturers under patents for rubber steps for carriages, railway cars, and the like, in which they have an international trade, are planning an enlargement of their premises and the taking on of some new lines of manufacture. Associated with Mr. Daniel Gilman, principal owner of the business and treasurer of the company, will be James F. Pring, formerly of the rubber industry at Hyde Park, Massachusetts; Everett B. Cook, and Otis E. Moulton. A new specialty will be an automobile tire to be made with a new cement mixture to fasten the rubber and canvas of the tread more securely than has been the rule hitherto. The company will also manufacture heels and soles, and be in a position to make other molded goods. They were lately working on important orders for rubber steps for England and Australia.

### SALE OF A FORMER RUBBER FACTORY BUILDING.

THE sale is reported of the building occupied by the Milford Rubber Co. (Milford, Massachusetts), a proofing concern which went out of business during the past year. The company was incorporated May 24, 1899. After occupying other premises they purchased, in 1901, the "Shippee" factory of the old Milford Shoe Co., which is the property just sold. The purchaser is Frank P. Lee, of Milford, who is reported to be thinking of getting some leather shoe concern into the shop.

### GETTING READY FOR WORK AT MANSFIELD.

THE Mansfield Rubber Co. (Mansfield, Ohio) expect to be in operation about March 15. They have contracted for the disposal of the output of their mechanical goods to two New York houses, and their automobile tires to a car manufacturer in Michigan. They have lately purchased \$46,000 worth of new machinery from leading makers, and also the entire equipment of the Reinforced Hard Rubber Co. (Jersey City, New Jersey), organized in 1905 but not active for two years past. The Mansfield Rubber Co. have about 68,000 square feet of floor space, and have in progress new construction which will add 40,000 square feet to this. F. A. Wilcox, formerly of the Pennsylvania Rubber Co., is president and general manager, and F. W. Walters, also lately with the Pennsylvania company, is sales manager.

### TRADE NEWS NOTES.

THE importers at New York of "india-rubber cloth"—described officially as "a fabric composed of three layers of cotton cloth and one of linen cloth, with an india-rubber face, all joined together with an india-rubber solution"—protested against the collector's appraisal of the same as goods of which the chief value was cotton. The government appraisers agreed with the importers that india-rubber was the component of chief value.

The Seamless Rubber Co. (New Haven, Connecticut) will erect a two story brick structure 20 x 20 feet, in connection with their factory on Daggett street.

The business of Interstate Rubber Co., Inc. [see THE INDIA RUBBER WORLD August 1, 1907—page 353], at Spokane, Washington, has been acquired by the Rubber Manufacturing and Distributing Co.



#### THE "BOOT AND SHOE RECORDER" CHANGES HANDS.

It will be of interest to a very wide trade circle to hear that the founder and guiding spirit for 27 years of the *Boot and Shoe Recorder* (Boston), Mr. William L. Terhune, has disposed of his interest in that important journal, with a view to retiring from an active business career. The *Recorder* grew from small beginnings—it was one of the pioneers in trade journalism in America—to a position upon which its founder is heartily to be congratulated. The *Recorder*, being widely circulated in the shoe trade, has come to be known very generally among the distributors of rubber footwear. Mr. Terhune's in-



WILLIAM LEWIS TERHUNE.

terest has been purchased by the Root Newspaper Association, of New York, already owners of the *Dry Goods Economist*, one of the first two or three trade journals, as the term is understood now, to be established in the United States, and several other journals of importance. Mr. George E. B. Putnam, who for many years edited the rubber shoe department, and who has a wide acquaintance with the rubber and leather trades, will be in editorial charge of the *Recorder*.

#### NEW HOME FOR BORGFELDT & CO.

THE importing house of George Borgfeldt & Co. (New York), now located at Nos. 48-50 West Fourth street, have arranged for the construction of a new building to be occupied by them on Union square, to extend 225 feet on East Sixteenth street, from Fourth avenue to Irving place, and to have a depth of 146 feet. The building will be 11 stories high, contain 300,000 square feet of floor space, and probably will be the largest in the world devoted exclusively to the display of samples. The estimated cost is \$900,000. The building will cover the site of the present Westminster Hotel. The business was established by the late George Borgfeldt, 28 years ago, in a single loft in Leonard street.

#### COTTON DUCK NET PROFITS AGAIN SMALLER.

THE annual report of the Consolidated Cotton Duck Co. for 1908, presented at the annual meeting of shareholders at Baltimore, on February 15, showed a gross income from sales of \$6,772,844, a loss of \$3,848,541. The cost of material, labor, supplies and the general expenses were also smaller. Net earnings were \$726,926, against \$1,130,566 for the previous year, \$1,301,881.39 for 1906, and \$917,172.08 for 1905. The surplus is given at \$301,226, a decrease of \$403,340. Operations for the

year are reported to have been on a basis of 55 per cent. of the capacity of the mills, and the surplus here given represents the net earnings for the year after paying interest on the bonds. A semi-annual dividend of 1 per cent. on the preferred stock was declared, comparing with 2 per cent. paid on October 1 last, and 3 per cent. paid a year ago. The board was reelected and two members added—W. J. Casey and Spencer Turner.

The retiring directors and officers of the Mount Vernon-Woodberry Cotton Duck Co. were reelected at the same time, with the exception that Franklin Rollins was chosen to succeed C. K. Lord, deceased. [See THE INDIA RUBBER WORLD, March 1, 1908—page 199.]

The New York *Journal of Commerce* (February 18) prints an authorized statement to the effect that the earnings above reported are exclusive of the earnings of the sales company, The J. Spencer Turner Co., owned by the Consolidated Cotton Duck Co., which sold during 1908 \$10,889,000 of goods, including about \$4,000,000 of products not made by the Consolidated Cotton Duck mills, and after taking care of their debentures the Turner company have left \$34,434 from the operations of the year. Under the sinking fund the Turner company retired \$155,000 of their debentures, out of a total of \$1,600,000.

#### TRADE NEWS NOTES.

THE Utica Rubber Co. (Utica, New York), incorporated September 6, 1906, and since engaged in the distribution of the Boston Rubber Shoe Co.'s goods, have gone into liquidation, the business being taken over by The Bowne-Gaus Shoe Co., of the same city. The details of liquidation are in charge of Mr. William A. North, president of the Utica Rubber Co.

The factory of The Kaufman Rubber Co., Limited (Berlin, Ontario), a view of which was given in the last INDIA RUBBER WORLD, is reported already to be producing more than 1,000 pairs of footwear daily.

The insulated wire products of The Diamond Rubber Co. (Akron, Ohio) will be handled in the East by Howard R. Sharkey, with headquarters at No. 1876 Broadway, New York.

The Calmon Asbestos and Rubber Works of America (No. 100 Reade street, New York) have opened an office at No. 524 Penn avenue, Pittsburgh, Pennsylvania, in charge of Charles F. Beltz. The company manufacture a complete line of asbestos goods.

Mr. Walter E. Carver, for several years bookkeeper at the factory of the Apsley Rubber Co. (Hudson, Massachusetts), has gone to Chicago to be connected with the Rubber Manufacturing and Distributing Co., who are the distributing agents in the west for the Apsley products. Mr. Carver was a member of the Hudson school board, a lieutenant in the local militia, and master of Doric lodge, at Hudson.

There are reports that the American Federation of Labor are planning to organize into unions the rubber workers at Bristol, Woonsocket, and Olneyville, Rhode Island.

A fire at the factory of the E. H. Clapp Rubber Co. (Hanover, Massachusetts) at the end of January was held in check by the good working of the automatic sprinkler system, and speedily extinguished by the newly-organized local fire company, the damage not exceeding \$1,000.

Interest coupons on the 6 per cent. first mortgage bonds of the Safety Insulated Wire and Cable Co. (New York) were payable on February 1 at the office of The Knickerbocker Trust Co.

The Eureka Fire Hose Manufacturing Co. (New York) are erecting in connection with their plant at Jersey City a storehouse for raw materials, which will conform generally to the plans of the Associated Mutual Fire Insurance companies for brick and timber construction. The clear inside dimensions will be 75 x 50 feet, with ceiling 18 feet high, the structure being strong enough to be carried up to four stories as conditions warrant.

## RECENT ANNUAL ELECTIONS.

**HODGMAN Rubber Co.** (New York).—Directors: Charles A. Hodgman, George B. Hodgman, Fred A. Hodgman, S. Theodore Hodgman, Newton E. Stout. Officers: George B. Hodgman, president; Fred A. Hodgman, vice-president; S. Theodore Hodgman, secretary and treasurer.

**Rubber and Celluloid Harness Trimming Co.** (Newark, New Jersey).—Officers: Andrew Albright, Jr., president; E. A. Spurr, vice-president; Thomas M. Kays, secretary; Edward G. Robertson, treasurer.

## NEW JERSEY CORPORATIONS SUSPENDED.

THE governor of New Jersey, in a proclamation dated January 5, announced the suspension from the list of corporations formed under the laws of that state, on account of the non payment of corporation taxes for 1906, of a large number of corporations. Included are the following, related to the rubber interest, but none of which has operated to an important extent:

**Acme Rubber Stamp Co.**, Thenton; incorporated March 14, 1905; capital, \$25,000.

**Eagle Rubber Cement Co.**, Trenton; incorporated November 17, 1904; capital, \$125,000.

**Industrial Rubber Manufacturing Co.**, incorporated August 5, 1905, by Joseph P. P. Alves, Chadwick Scott, and others; "to treat chemically rubber and rubber plants;" capital, \$125,000.

The list of suspensions includes also El Porvenir Plantation Co. and Salid Plantation Co., promoted for rubber culture but not believed to have begun operations.

## CUSTOMS DECISIONS AT NEW YORK.

IN the matter of an importation of safety fuse by the Autolyte Manufacturing Co. (New York), brought before the United States general appraisers, the goods referred to, as claimed by the importers, were held dutiable as manufactures in chief value of rubber, and not of cotton.

An importation of carnauba wax—which material is used to a certain extent in the rubber industry—was held to be free of duty, under Paragraph 695 of the Tariff act, relating to vegetable and mineral wax.

## TRADE NEWS NOTES.

THE staff and employes of the Boston branch of The Diamond Rubber Co. have monthly dinners, the latest of which, at the Hotel Lenox, on the evening of February 6, was attended by 35 persons.

The Adamson Machinery Co. (Akron, Ohio) during the month began work on their new factory for rubber machinery, which it is expected will be ready for occupancy next fall.

David Maxwell & Sons (St. Mary's, Ontario) are reported to be equipping for the manufacture of rubber covered rollers.

The Star Rubber Co. (Akron, Ohio), who are putting out an attractive line of druggists' sundries, have opened a Chicago office, which is in charge of Mr. C. H. Ten Eyck.

The De Foote Rubber Co. (Cleveland, Ohio), jobbers in tires and other rubber goods, have changed their address from No. 326 Frankfort street to No. 1837 Euclid avenue.

The purpose of the new Bradley Tire Protection Co., mentioned in the last INDIA RUBBER WORLD (page 187) is to manufacture steel and aluminum tire protectors for automobile tires under patents guaranteed to H. M. Bradley, of Fort Worth, Texas. The Eastern representative is F. E. Bradley, No. 137 East Fifty-seventh street, New York.

The Cawn Mining and Manufacturing Co. (Canton, Ohio) are marketing a material they call Aluminite, produced from a particular deposit of clay and deriving its name from the large percentage of aluminum in its composition. Other qualities mentioned are low specific gravity and a high fusing point; it is also insoluble in water and very plastic. The material is referred to as having been tested by a number of rubber manufacturers with satisfactory results.

## NEW INCORPORATIONS.

**AMERICAN Wire Cable Co.**, December 29, 1908, under the laws of Delaware; capital \$50,000. Incorporators: Ernest L. Squire (No. 925 Market street), J. A. Byrne and K. M. Byrne, all of Wilmington, Delaware.

**Market Rubber Co.**, January 15, 1909, under the laws of Illinois; capital \$100,000. Incorporators: Harry J. Dunbaugh, George C. Madison, and J. Edwin Wing. Represented by Isham, Lincoln & Beale, No. 115 Adams street, Chicago.

**Morgan & Wright**, January 4, 1909, under the laws of New York; capital, \$10,000. Incorporators: Herman Goldman (No. 50 East Eighty-sixth street), John B. Trainor, and Frank Desch, all of New York city. Object, to take care of the trade in New York territory of Morgan & Wright, rubber manufacturers of Detroit, Michigan.

**Cincinnati Rubber Tire Co.**, January 19, 1909, under the laws of Ohio; capital \$10,000. Incorporators: Frank Ayers, M. C. Lykins, Charles S. Naughton, Joseph B. Schroeder and James S. Bradshaw.

**Keller-Rowe Hoof Pad Co.**, January 20, 1909, under the laws of Illinois; capital not stated, incorporation not being completed. Incorporators: Charles R. Brown, Charles Martin, and T. A. Sheehan, addresses not stated. Papers filed by Alden, Latham & Young, attorneys, Corn Exchange Bank building, Chicago.

**The Boston-Panama Timber and Rubber Co.**, January 30, 1909, under the laws of Maine; capital \$5,000,000. Incorporators, Horae Mitchell and M. G. Mitchell, Kittery, Maine; S. J. Morrison, Portsmouth, New Hampshire; Elmer Sears, Newton, Massachusetts; Charles G. Brazier, Boston; and William H. Mitchell, Melrose, Massachusetts; Horace Mitchell, president and clerk, and S. J. Morrison, treasurer.

## A SMALLER EGYPTIAN COTTON CROP.

THE arrivals of cotton at Alexandria—the market for this commodity in Egypt—from September 1, 1907, to December 3, 1908, were 291,931,600 pounds, as compared to 363,515,100 pounds during a like period the previous season. The size of the last crop is estimated at 625,000,000 to 650,000,000 pounds, or about 112,000,000 pounds less than in the year before. The decrease is attributed to weather conditions. Exports of Egyptian cotton from September 1 to December 3 of two seasons are reported as follows:

	1907.	1908.
England .....	185,751	111,171
Continental Europe.....	102,875	88,920
United States.....	19,181	15,090
Total .....	307,807	215,181

## TRADE NEWS NOTES.

THE treasury department at Washington has issued an order allowing a drawback on duties collected on imported hemp which may enter into the manufacture at Daniel's P. P. rod packing, manufactured by the Quaker City Rubber Co. (Philadelphia), and exported by them, equal to the duty paid on the imported material, less 1 per cent.

(The fire which destroyed the factory of the Boynton Improved Process Oil Clothing Co., at Gloucester, Massachusetts, on February 12, caused a loss reported in the newspapers at \$60,000.

Mr. George E. Hall, general manager of the Boston Woven Hose and Rubber Co., during the past month made a business tour through the South and Southwest reporting improved prospects and indications of a good business year.

A petition in involuntary bankruptcy was filed against Eugene Arnstein, manufacturer of rubber cements, in Chicago, on February 18, 1909, in the United States district court in the northern district of Illinois, by William A. Rogan, lawyer, No. 119 Monroe street, Chicago, on behalf of unsecured creditors with claims aggregating about \$40,000. American Trust and Savings Bank was appointed by the court receiver of the bankrupt estate.

## TRADE NEWS NOTES.

THE products of Firestone Tire and Rubber Co. (Akron, Ohio) will be handled after March 1 by a direct branch at Cleveland, Ohio, where the company have leased entire the storerooms Nos. 1918-1922 Euclid avenue.

Chapman Insulating Co., January 26, 1909, under the laws of New Jersey; capital, \$20,000. Incorporators: Henry S. Chapman, Edward N. Crane, and Charles W. Royce. Messrs. Chapman & Crane are respectively president and vice-president of The Arlington Co. and of The Kempshall Manufacturing Co. (New York)—from whose offices, No. 725 Broadway, THE INDIA RUBBER WORLD is informed: "The Chapman Insulating Co. is purely a private concern, organized for some experimental work along certain lines, and we have no information at the present time that would interest the public."

Philadelphia Rubber Tire Co.—S. Levy, manager—have secured the sole agency for "Trojan" pneumatic and solid carriage tires, in connection with which they will handle tire sundries and molded rubber goods, and maintain a tire repair shop. They are located at No. 680 North Broad street. The "Trojan" casings and tubes are manufactured by Rubber Rubber Co. (Rutherford, New Jersey) and are identical in workmanship and quality with the "Sterling" tires which the Rutherford company sell through other channels. The Rutherford plant has been enlarged substantially of late.

Rubber Manufacturing and Distributing Co., incorporated in Maine March 7, 1906, have qualified to do business as a "foreign" corporation in the state of Illinois, from February 4, 1909. The capital is \$500,000, of which \$125,000 is represented in the state of Illinois. Chicago will be the company's headquarters in future, but they will continue to do business at Seattle, Washington. Hon. L. D. Apsley is president, Charles F. Hamilton vice-president, Walter E. Carver secretary, and Louis B. Hitchins treasurer. The remaining director is Charles H. Crump.

E. H. Stroud & Co. (Chicago), makers of crushing, disintegrating, and other like machinery, mention two branches of the rubber industry in which their products are used—rubber reclaiming (for scrap rubber) and the guayule rubber business in Mexico.

Mr. A. C. Baker has been appointed managing director of the North British Rubber Co., Limited, succeeding Mr. Ramsey G. Stewart, who resigned on account of ill health.

The Directory of the Sporting Goods Trade, issued last year by the Sporting Goods Publishing Co. (St. Louis), and of which a notice was made in these pages at the time, has been followed by the second annual edition, for 1909, in which all the good features of the original publication are continued; besides, the book is larger and contains more details.

The Goodyear Tire & Rubber Co. (Akron, Ohio) have issued a new price list of their automobile tires and accessories, dated February 1.

Raw Products Co. (New York) have favored us with their chart of India-rubber statistics for 1908, with comparative prices for the two years preceding. The table includes among other things quotations for Bontianak gum for each month in the year, ranging from 2½ cents a pound in March to 5 cents at the end of December.

A. G. Spalding & Brothers (New York) will be opening a retail sporting goods business in Philadelphia about April 1, having taken a long term lease on the three-story building at No. 1210 Chestnut street. F. J. Gray will be manager.

Mr. Arthur E. Friswell, after a long experience in the rubber tire industry in the United States and Great Britain, has become factory manager for the Hartford Rubber Works Co. (Hartford, Connecticut).

David Maxwell & Sons, manufacturers of farm implements at St. Marys, Ontario, are reported to be considering the taking on of the production of rubber rolls for clothes wringers, though they are not yet in a position to make any announcement.

## PERSONAL MENTION.

MR. HAROLD O. SMITH, president of the Premier Motor Manufacturing Co. (Indianapolis, Indiana), who was elected chairman of the committee of management of the American Motor Car Manufacturers' Association, at the annual meeting in Chicago, early in February, after three years' membership in that committee, was for several years president of the G. & J. Tire Co., and before that connected with the Indianapolis Rubber Co., whom he represented at the organization of the American Bicycle Co.

Colonel Samuel P. Colt, president of the United States Rubber Co., is reported to be giving to the town of Bristol, Rhode Island, a \$200,000 high school building, in memory of his mother.

At a largely attended meeting of the Automobile Club of Willimantic, Connecticut, on the evening of February 11, Mr. Charles B. Whittlesey, superintendent of the Hartford Rubber Works Co., delivered an interesting address on "Automobile Tires," in which he dealt with rubber in the crude state and the various processes of manufacture, illustrating his lecture with samples of rubber and sections of tires in various stages of completion.

## TRADE NEWS NOTES.

THE E. H. Clapp Rubber Co. have presented the Hanover Fire Company with a beautiful clock for their new quarters, in appreciation of their services at the recent fire at their factory.

A. A. Cushman has accepted the position of assistant superintendent of the calender hose belting, and fancy goods departments of the National India Rubber Co. (Bristol, Rhode Island).

Fairfield Rubber Co. (Fairfield, Connecticut) are building an additional storehouse, one story, 43 x 56 feet, with ruberoid roof.

J. Lowenthal & Sons (Chicago), scrap rubber merchants, have transferred their Eastern branch from New York to No. 161 Summer street, Boston.

M. D. Wells Co. (Chicago) are handling a special line of rubber footwear made for them by the Boston Rubber Shoe Co., with which they are covering the trade in the region from Ohio, inclusive, west to the Rocky mountains. Their rubber department is now in charge of James Low, for some time manager of the Duck Brand Co. (Chicago).

In the bright little periodical, *The Shoe Finisher*, published by the Boston Blacking Co. (East Cambridge, Massachusetts), there appears in the January issue, under the head, "Rubber Goes Up," an article on the rubber cement situation, written in an amusing style, but none the less pertinent on that account. The company are referred to as having built up a large trade in England.

The United States Rubber Co. have done a good stroke of business in supplying each of their 7,000 and odd shareholders with a neat booklet in which appear *in fac simile* the brands of rubber boots and shoes manufactured by that company, with the idea that when they have occasion to buy goods of this class they may at the same time help the sale of the products which aid in bringing them dividends.

At a luncheon given by Mr. Joe M. Gilbert, general manager of the Continental Caoutchouc Co., at the Hotel Astor, New York, on the afternoon of January 5, the guests included 17 agents and distributors of "Continental" tires throughout the United States. There were speakers and "a general good time." The merits of "Continental" tires and demountable rims were not overlooked.

An important case in the British courts recently related to an application by The Gutta Percha and Rubber Manufacturing Co. of Toronto, Limited, for the registration of their "Maltese Cross" trade mark, as related to rubber footwear, which application was opposed by the Leyland and Birmingham Rubber Co., Limited, who already had a "Maltese Cross" brand registered for rubber goods, but not specifying footwear. The legal proceedings were long drawn out, involving the whole theory of the trade mark act, with the final result that a decision was rendered in favor of the Toronto company. The court assented, however, to the request of the opponents for leave to appeal.



## Review of the Crude Rubber Market.

THE prices of Pará rubber as compared with a month ago range from 4 to 5 cents a pound higher, thus continuing the increase which has been in progress since the last low water mark a year ago, if we overlook the short spurt which occurred last November. Prices are now higher than at any time since the middle of 1906, in spite of the facts that Pará arrivals continue on a larger scale. Guayule rubber continues to be produced and sold in large quantities, and there is a steady increase in the import of plantation sorts. The market has been quiet on both sides of the Atlantic, and current quotations seem to result from normal conditions. In America the footwear factories have been inactive for a longer period than in any recent winter, so that the conditions must indicate a very general activity in other lines of rubber goods production. In the leading sorts of Africans and Centrals an increase of 1 to 2 cents a pound is to be noticed, and the market in these sorts has been steady and firm.

Following are the quotations at New York for Pará grades, one year ago, one month ago, and February 27—the current date:

PARÁ.	Mar. 1, '08.	Feb. 1, '09.	Feb. 27
Islands, fine, new.....	65@66	114@115	119@120
Islands, fine, old.....	none here	none here	121@122
Upriver, fine, new.....	67@68	121@122	125@126
Upriver, fine, old.....	69@70	123@124	127@128
Islands, coarse, new.....	41@42	56@ 57	61@ 62
Islands, coarse, old.....	none here	none here	none here
Upriver, coarse, new.....	48@49	92@ 93	96@ 97
Upriver, coarse, old.....	none here	none here	none here
Caméa .....		62@ 63	66@ 67
Caucho (Peruvian), ball..	43@44	83@ 84	85@ 86
Caucho (Peruvian), sheet..	49@50	55@ 56	74@ 75
Ceylon (Plantation), fine sheet .....	75@76	128@129	129@130

### AFRICAN.

Sierra Leone, 1st quality..	97@98	Lopori ball, prime....	108@109
Massai, red .....	97@98	Lopori strip, prime....	none here
Benguella .....	61@62	Madagascar, pinky ...	91@ 92
Accra flake .....	20@21	Ikelemba .....	none here
Cameroon ball .....	60@61	Soudan niggers .....	85@ 86

### CENTRALS.

Esmeralda, sausage.....	81@82	Mexican, scrap .....	80@ 81
Guayaquil, strip .....	72@73	Mexican, slab .....	57@ 58
Nicaragua, scrap .....	78@80	Mangabeira, sheet ...	52@ 53
Panama .....	62@63	Guayule .....	30@ 31

### EAST INDIAN.

Assam .....	92@93	Borneo .....	35@ 45
-------------	-------	--------------	--------

Late Pará cables quote:

	Per Kilo.		Per Kilo.
Islands, fine .....	\$800	Upriver, fine .....	6\$700
Islands, coarse .....	2\$700	Upriver, coarse .....	4\$700
		Exchange .....	15¼d.

Latest Manáos advices:

Upriver, fine .....	7\$000	Exchange .....	15¼d.
Upriver, coarse .....	5\$000		

### Statistics of Para Rubber (Excluding Caucho.)

	Fine and Medium.	Coarse.	Total 1909.	Total 1908.	Total 1907.
Stocks, January 1 .....	195	49	= 244	114	176
Arrivals, January .....	1244	534	= 1778	1160	1590
Aggregating .....	1439	583	= 2022	1274	1766
Deliveries, January ...	1259	528	= 1787	1164	1638
Stocks, January 31..	180	55	= 235	110	128

	PARÁ.	ENGLAND.
	1909.	1908.
Stocks, Jan. 1.....tons	695	248
Arrivals, January ....	4335	4045
Aggregating .....	5030	4293
Deliveries, January ...	3955	3048
Stocks, January 31..	1075	1245

	1909.	1908.	1907.
World's visible supply, Jan. 31...tons	3,540	4,060	2,587
Pará receipts, July 1 to January 31....	18,410	16,945	16,730
Pará receipts of caucho, same dates...	2,840	2,195	1,655
Afloat from Pará to U. S., Jan. 31..	890	445	499
Afloat from Pará to Europe, Jan. 31..	1,080	1,410	650

### New York.

#### SUMMARY OF PRICES FOR 1908.

	UPRIVER.	ISLANDS.	CAMETA.
	FINE.	COARSE.	FINE.
January .....	74@ 82	56@ 65	71@ 76
February .....	66@ 76	48@ 56	65@ 74
March .....	70@ 83	48@ 59	68@ 80
April .....	78@ 84	55@ 58	75@ 80
May .....	83@ 94	58@ 65	80@ 90
June .....	88@ 94	62@ 65	84@ 89
July .....	91@ 96	64@ 67	83@ 88
August .....	89@ 96	65@ 69	83@ 90
September .....	96@103	69@ 73	90@ 96
October .....	103@113	72@ 82	95@104
November .....	112@130	82@100	104@124
December .....	115@123	89@ 94	112@116

#### AVERAGE PRICES.

1908 .....	93¼	67½	88¼	47½	52
1907 .....	109¼	88	104½	61¾	65½
1906 .....	124½	93½	121	70	72¼
1905 .....	128½	93½	125½	72	74
1904 .....	113¼	87¾	110	65½	65½
1903 .....	94¾	76½	91¼	57¾	59¼
1902 .....	76	60¾	73	47¾	50¾

#### NEW YORK PRICES FOR DECEMBER (NEW RUBBER).

	1908.	1907.	1906.
Upriver, fine .....	1.15@1.23	.82@.86	1.22@1.24
Upriver, coarse .....	.89@.94	.66@.72	.96@.98
Islands, fine .....	1.11@1.16	.72@.79	1.18@1.20
Islands, coarse .....	.52@.61	.44@.50	.71@.73
Cameta .....	.57@.64	.43@.48	.72@.74

### Rubber Exports from the Amazon, 1908.

The following figures are compiled from tables supplied to THE INDIA RUBBER WORLD by Messrs. Scholz, Hartje & Co., of Pará (indicating weights in kilograms):

	POINTS OF SHIPMENT.	DESTINATION.
	FROM—	TO—
	Fine.	Fine.
Pará .....	8,872,442	1,213,090
Manáos .....	9,521,410	1,871,692
Iquitos .....	881,895	34,868
Total .....	19,275,747	3,119,650
[* Including Itacoatiara.]		
	Medium.	Medium.
Pará .....	5,707,975	5,473,429
Manáos .....	2,404,735	2,847,329
Iquitos .....	208,048	
Total .....	8,320,758	8,320,758
	Coarse.	Coarse.
Pará .....	2,018,159	1,866,388
Manáos .....	4,188,149	5,074,326
Iquitos .....	734,406	
Total .....	6,940,714	6,940,714
	Caucho.	Caucho.
Pará .....	17,811,666	17,145,400
Manáos .....	17,985,986	20,511,469
Iquitos .....	1,859,217	
Total .....	37,656,869	37,656,869

### London.

LONDON, January 29.—During the fortnight past a fair business has been doing privately in plantation grades at somewhat higher figures. At to-day's auction, however, there were evidences of a setback, and Pará was quoted at about the same as at the last auction. There was a good demand for Plantation, however, at an advance over the last auction rates up to 1½d. The offerings totaled 45 tons, against 108 tons last sale, the proportion of finer

grades being less than usual. The highest figure realized for Plantation was 5s. 4 $\frac{3}{4}$ d. [= \$1.31 $\frac{1}{4}$ ], for crepe. To-day's price for fine hard Pará, 5s. [= \$1.21 2/3].

### United States Rubber Imports.

	1906.	1907.	1908.
United Kingdom.....pounds	10,693,382	6,886,621	11,805,484
Germany .....	3,878,823	4,021,055	3,616,766
Other Europe .....	9,509,074	8,187,430	7,822,099
Central America and British Honduras .....	1,106,618	1,160,252	797,033
Mexico .....	3,635,485	8,538,656	11,057,245
Brazil .....	34,329,523	36,454,988	38,028,444
Other South America.....	1,936,147	1,906,260	1,416,258
East Indies.....	2,557,128	1,455,489	1,123,073
Other Countries.....	171,071	42,540	23,072

Totals .....	67,907,251	68,653,291	76,289,474
Value .....	\$53,391,137	\$49,813,361	\$44,782,526
Average per pound.....	78.3 cents.	75.4 cents.	58.7 cents.
EXPORTS .....	3,753,462	4,102,838	3,708,012
Net Imports .....	64,153,789	64,550,453	72,581,462

### OTHER IMPORTS.

Gutta-percha .....	pounds 34,169	502,722	155,131
Gutta-jelutong .....	18,164,293	33,679,951	16,640,322

Balata was not separately listed in the government statistics for calendar years before July 1, 1908; during the second half of the year 583,422 pounds were entered, of the average value of 42.3 cents.

### Antwerp.

#### RUBBER ARRIVALS FROM THE CONGO.

JANUARY 19.—By steamer *Leopoldville*:

Bunge & Co.....(Société Générale Africaine)	kilos 48,200
Do .....	38,200
Do .....	2,300
Do .....	2,500
Do .....	4,800
Do .....	17,500
Do .....	1,700
Société Coloniale Anversoise.....(Belge du Haut Congo)	1,100
Do .....	72,500
Do .....	500
Do .....	6,700
Do .....	196,000

### PARA RUBBER VIA EUROPE.

	POUNDS.
JAN. 22.—By the <i>Brasilia</i> =Hamburg:	
General Rubber Co.....	11,500
JAN. 25.—By the <i>Lucania</i> =Liverpool:	
Livesey & Co. (Coarse).....	5,000
JAN. 26.—By the <i>Pennsylvania</i> =Hamburg:	
W. L. Gough Co. (Fine).....	13,500
Livesey & Co. (Coarse).....	15,500
JAN. 27.—By the <i>Pallanza</i> =Hamburg:	
W. L. Gough Co. (Fine).....	11,000
FEB. 1.—By the <i>Arabic</i> =Liverpool:	
Livesey & Co. (Fine).....	17,000
Livesey & Co. (Coarse).....	5,000
FEB. 2.—By the <i>Bovic</i> =Liverpool:	
Poel & Arnold (Coarse).....	4,000
FEB. 3.—By the <i>Zeeland</i> =Antwerp:	
W. L. Gough Co.....	11,500
FEB. 5.—By the <i>Majestic</i> =London:	
Poel & Arnold (Coarse).....	22,500
FEB. 5.—By the <i>Waldsee</i> =Hamburg:	
New York Commer. Co. (Fine).....	15,000
New York Commer. Co. (Coarse).....	28,000
FEB. 8.—By the <i>Alliance</i> =Mollendo:	
W. R. Grace & Co. (Caucho).....	16,000
FEB. 11.—By the <i>Samland</i> =Antwerp:	
Rubber Trading Co. (Fine).....	9,000
FEB. 15.—By the <i>Patricia</i> =Hamburg:	
George A. Alden & Co. (Coarse).....	11,500
FEB. 16.—By the <i>Amerika</i> =Hamburg:	
New York Commercial Co. (Fine).....	13,500
FEB. 18.—By the <i>Clyde</i> =Mollendo:	
New York Commercial Co. (Fine).....	7,500
FEB. 17.—By the <i>Georgia</i> =Liverpool:	
Edmund Reeks & Co. (Fine).....	18,000
Edmund Reeks & Co. (Coarse).....	9,000
Edmund Reeks & Co. (Caucho).....	2,000
Nuess Hesslein & Co. (Fine).....	11,500
Nuess Hesslein & Co. (Caucho).....	6,000

### OTHER NEW YORK ARRIVALS.

#### CENTRALS.

[\*This sign, in connection with imports of Centrals, denotes Guayule rubber.]

JAN. 23.—By the <i>Altai</i> =Columbia:	
Kunhardt & Co.....	3,500
L. Hageman & Co.....	3,000
JAN. 23.—By the <i>Merida</i> =Frontera:	
Harburger & Stack.....	9,000
E. Steiger & Co.....	6,000
A. Klipstein & Co.....	2,500
H. Marquardt & Co.....	2,500
George A. Alden & Co.....	1,000
American Trading Co.....	1,000

	POUNDS.
JAN. 25.—By the <i>El Rio</i> =Galveston:	
Continental-Mexican Rubber Co.....	*77,000
JAN. 25.—By the <i>Lucania</i> =Liverpool:	
George A. Alden & Co.....	33,500
JAN. 25.—By the <i>New York</i> =London:	
Poel & Arnold.....	7,000
JAN. 26.—By the <i>Panama</i> =Colon:	
J. Brandon & Bros.....	15,500
Jose Julia & Co.....	2,000
Meyer & Hecht.....	1,500
Wessels Kulemkamp Co.....	1,000
Piza Nephews Co.....	1,000
De Lima Cortessa Co.....	1,000
G. Amsinck & Co.....	1,000
JAN. 26.—By the <i>Augusta Victoria</i> =Hamburg:	
J. H. Rosbach & Bros.....	9,000
JAN. 27.—By the <i>El Dia</i> =Galveston:	
For Canada.....	*6,500
JAN. 30.—By the <i>Morro Castle</i> =Vera Cruz:	
Graham Hinkley Co.....	2,000
H. Marquardt & Co.....	1,000
JAN. 30.—By the <i>Segimund</i> =Columbia:	
Seanz & Co.....	1,500
Mailland Coppell Co.....	1,500
G. Amsinck & Co.....	1,500
A. Held.....	1,000
FEB. 1.—By the <i>Comus</i> =New Orleans:	
Eggers & Heinlein.....	2,500
G. Amsinck & Co.....	1,500
FEB. 3.—By the <i>Advance</i> =Colon:	
G. Amsinck & Co.....	6,500
F. Lapeirda.....	6,000
Roldau & Van Sickle.....	5,000
Simon Elais & Co.....	3,500
Demarest Brothers.....	3,000
L. Johnson & Co.....	1,000
American Trading Co.....	3,000
A. Rosenthal & Sons.....	1,000
Mecke & Co.....	1,000
Elmenhorst & Co.....	1,000
FEB. 3.—By the <i>El Norte</i> =Galveston:	
Continental-Mexican Rubber Co.....	*40,000
FEB. 4.—By the <i>Siberia</i> =Greytown:	
G. Amsinck & Co.....	15,000
Jose Julia & Co.....	11,000
Mecke & Co.....	1,500
De Lima Cortessa Co.....	1,000
Brandon & Bros.....	1,000
FEB. 5.—By the <i>Hugin</i> =Tampico:	
New York Commercial Co.....	*125,000
Edward Maurer.....	*125,000
Poel & Arnold.....	*35,000

### Antwerp.

#### RUBBER STATISTICS FOR JANUARY.

DETAILS.	1909.	1908.	1907.	1906.	1905.
Stocks, Jan. 1.....kilos	595,735	1,006,894	658,184	735,187	541,361
Arrivals in January.....	283,955	547,968	317,692	605,029	325,081
Congo sorts .....	186,180	504,451	242,806	414,613	239,709
Other sorts .....	97,766	43,517	74,886	190,416	85,372
Aggregating .....	879,690	1,554,862	975,876	1,340,216	866,442
Sales in January .....	281,913	294,853	357,226	821,521	567,094
Stocks, January 31.....	597,777	1,260,009	618,650	518,695	299,348
Arrivals since Jan. 1.....	283,955	547,968	317,692	605,029	325,081
Congo sorts .....	186,180	504,451	242,806	414,613	239,709
Other sorts .....	97,766	43,517	74,886	190,416	85,372
Sales since Jan. 1.....	281,913	294,853	357,226	821,521	567,094

### IMPORTS FROM PARA AT NEW YORK.

[The Figures Indicate Weights in Pounds.]

FEBRUARY 6.—By the Steamer *Benedict*, from Manáos and Pará:

IMPORTERS.	FINE.	MEDIUM.	COARSE.	CAUCHO.	TOTAL.
New York Commercial Co.....	400,300	101,600	116,000	113,800	731,700
A. G. Morse & Co.....	280,100	62,700	157,600	74,900	575,300
Poel & Arnold.....	165,600	57,700	171,100	92,700	487,100
General Rubber Co.....	55,700	24,000	80,200	32,800	192,700
Hagemeyer & Brunn.....	24,000	.....	30,400	.....	54,400
C. P. dos Santos.....	25,800	2,700	5,000	16,700	50,200
Wm. E. Peck & Co.....	36,000	.....	13,200	.....	49,200
Edmund Reeks & Co.....	5,400	1,000	16,400	.....	22,800
G. Amsinck & Co.....	10,300	1,700	300	2,300	14,600
TOTAL .....	1,003,200	251,400	590,200	333,200	2,178,000

FEBRUARY 17.—By the Steamer *Cearense*, from Manáos and Pará:

A. G. Morse & Co.....	681,400	112,600	154,100	123,700	1,071,800
New York Commercial Co.....	145,200	30,500	93,700	123,000	393,300
Poel & Arnold.....	186,900	40,400	102,400	17,700	347,400
Lawrence Johnson & Co.....	38,200	6,400	20,600	37,000	102,200
Hagemeyer & Brunn.....	22,100	.....	48,200	.....	70,300
G. Amsinck & Co.....	22,300	4,100	2,000	11,600	40,000
Edmund Reeks & Co.....	16,100	2,100	18,500	.....	36,700
General Rubber Co.....	12,100	2,500	10,600	9,600	34,800
C. P. dos Santos.....	15,700	1,400	7,900	.....	25,000
TOTAL .....	1,140,000	200,000	458,000	323,500	2,121,500

#### POUNDS.

	POUNDS.
FEB. 5.—By the <i>El Mar</i> =Galveston:	
Continental-Mexican Rubber Co.....	*125,000
For Canada.....	*15,000
FEB. 6.—By the <i>Mexico</i> =Frontera:	
Harburger & Stack.....	3,500
General Export Commercial Co.....	1,500
E. Steiger & Co.....	1,000
A. Klipstein & Co.....	1,000
FEB. 8.—By the <i>Afghan Prince</i> =Bahia:	
Poel & Arnold.....	38,000
J. H. Rosbach & Bros.....	22,000
A. Hirsch & Co.....	10,000
FEB. 8.—By the <i>El Siglo</i> =New Orleans:	
Central American Trading Co.....	3,000
FEB. 8.—By the <i>Vigilancia</i> =Tampico:	
Edward Maurer.....	190,000
Poel & Arnold.....	35,000
J. A. Kendall Co.....	2,000
FEB. 8.—By the <i>Alliance</i> =Colon:	
Brandon & Bros.....	11,500
G. Amsinck & Co.....	4,000
Demarest Bros. Co.....	4,000
Simon Elais & Co.....	5,000
Maitland Coppell Co.....	2,500
George A. Alden & Co.....	2,500
Fidanque Bros.....	1,500
Piza Nephews Co.....	1,000
FEB. 11.—By the <i>Prins Joachim</i> =Colon:	
A. Santos & Co.....	12,500
Mecke & Co.....	4,500
A. Rosenstein & Co.....	2,500
L. Johnson & Co.....	1,500
G. Amsinck & Co.....	2,500
Eggers & Heinlein.....	1,500
M. Blancha Co.....	1,000
FEB. 13.—By the <i>Colon</i> =Colon:	
Brandon & Bros.....	3,000
G. Amsinck & Co.....	1,500
Mecke & Co.....	1,000
Meyer & Hecht.....	1,000
FEB. 13.—By the <i>Esperanza</i> =Frontera:	
Harburger & Stack.....	7,000
E. Steiger & Co.....	5,000
H. Marquardt & Co.....	2,500
General Export & Commission Co.....	2,000
FEB. 15.—By the <i>Patricia</i> =Hamburg:	
Poel & Arnold.....	*65,000
FEB. 15.—By the <i>Momus</i> =New Orleans:	
Ari Rotholz.....	5,000
Manhattan R. Mfg. Co.....	2,500
A. Rosenstein & Co.....	3,000
Wessels, Kulemkamp Co.....	1,000

# RUBBER FLUX

No. 17. Particularly adapted to softening material for tubing machine. Almost universally used for waterproofing wire.

No. 48. For fluxing pigments in compounding. A valuable adjunct to the manufacture of moulded goods as it DOES NOT BLOW UNDER CURE.

WRITE FOR PRICES.

*Massachusetts Chemical Co., Walpole, Mass.*

Sole Factories:  
WALPOLE RUBBER WORKS  
WALPOLE VARNISH WORKS  
ELECTRIC INSULATION LABORATORY

## WE ARE OFFERING SCRAP RUBBER AT LOW PRICES



**Theodore Hofeller & Company**  
BUFFALO, N. Y.



WE SOLICIT YOUR INQUIRIES

### Rubber Boot and Shoe Manufacturers

- ¶ Would you like to prevent the cracking of your rubbers?
- ¶ Our MALTHA HYDRO-CARBON retains its pliability at zero weather.
- ¶ Drop us a line, and with pleasure we'll send you a working sample gratis.

**AMERICAN WAX COMPANY, 161 Summer St., Boston, Mass.**

THE MOST TALKED OF  
CHEMICAL IN THE  
RUBBER TRADE

Write for Leaflet

American Vulco'e Co., 101 Summer St., Boston, Mass.

# VULCOLE

## CHARLES T. WILSON MEXICAN (Guayule) RUBBER

I invite inquiries from manufacturers on this rubber. Being the direct representative of large producers, I am in position to quote on various qualities for immediate and future delivery.

Telegraphic Address.  
"CRUDERUB"

Office,

46 Cortlandt Street,

NEW YORK CITY

*Mention The India Rubber World when you write.*



# GUAYULE

Made by mechanical process only, of strictly fresh shrub.

No chemicals used.



The recognized Standard, practically clean, containing less resin and having greater tensile strength than any other Guayule.



Prepared from high grade "Parra" Guayule, guaranteed uniform, washed and dried, ready for use. Vulcanizes easily without special compounding.

CONTRACTS MADE FOR REGULAR WEEKLY  
OR MONTHLY DELIVERIES

For Samples and Quotations apply to

**ED. MAURER**

97 Water St., NEW YORK

Sole Representative of the MADERO interests in Mexico,

Largest Producers of Guayule Rubber, Operating Nine Factories.

POUNDS.		POUNDS.		POUNDS.	
FEB. 16.—By the <i>Amerika</i> =Hamburg:		FEB. 3.—By the <i>Zeeland</i> =Antwerp:		FEB. 2.—By the <i>Denbigh Hall</i> =Colombo:	
Poel & Arnold.....	*25,000	Poel & Arnold.....	11,500	A. T. Morse & Co.....	*13,500
FEB. 17.—By the <i>Cavour</i> =Bahia:		W. L. Gough Co.....		FEB. 3.—By the <i>Massachusetts</i> =London:	
New York Commercial Co.....	22,500	W. H. Stiles & Co.....	5,000	New York Commercial Co.....	*15,000
I. H. Rosshack & Bros.....	25,000	FEB. 3.—By the <i>California</i> =Bordeaux:		Livesey & Co.....	*6,500
Poel & Arnold.....	10,000	General Rubber Co.....	55,000	FEB. 3.—By the <i>Wray Castle</i> =Singapore:	
FEB. 17.—By the <i>Sarnia</i> =Greytown:		Livesey & Co.....	11,500	George A. Alden & Co.....	15,000
G. Amsinck & Co.....	7,000	FEB. 5.—By the <i>Majestic</i> =London:		Heabler & Co.....	15,000
A. Santos & Co.....	5,500	Livesey & Co.....	24,000	W. L. Gough Co.....	9,000
Pablo Calvert Co.....	1,500	FEB. 5.—By the <i>Walderssee</i> =Hamburg:		FEB. 11.—By the <i>Oceanic</i> =London:	
A. M. Capea & Sons.....	1,500	Livesey & Co.....	11,500	A. T. Morse & Co.....	*11,500
Henry Mann & Co.....	1,500	George A. Alden & Co.....	7,000	Poel & Arnold.....	*4,500
A. Rosenthal Sons.....	1,000	Rubber Trading Co.....	2,500	FEB. 18.—By the <i>Teutonic</i> =London:	
FEB. 18.—By the <i>Bayamo</i> =Tampico:		FEB. 6.—By the <i>Campania</i> =Liverpool:		New York Commercial Co.....	30,000
Continental-Mexican Rubber Co.*	200,000	General Rubber Co.....	25,000	Poel & Arnold.....	*11,000
Edward Maurer.....	125,000	George A. Alden & Co.....	5,000	A. T. Morse & Co.....	*10,000
Poel & Arnold.....	*35,000	Earle Brothers.....	3,500	GUTTA-JELUTONG.	
For Akron, O.....	*125,000	FEB. 8.—By the <i>Celtic</i> =Liverpool:		JAN. 25.—By the <i>Woglinde</i> =Singapore:	
FEB. 19.—By the <i>Panama</i> =Colon:		Poel & Arnold.....	7,000	Heabler & Co.....	75,000
Brandon & Bros.....	13,500	FEB. 11.—By the <i>Samlad</i> =Antwerp:		G. Weschuer & Co.....	55,000
R. Fabien & Co.....	2,000	A. T. Morse & Co.....	30,000	FEB. 3.—By the <i>Wray Castle</i> =Singapore:	
Piza, Nephews Co.....	1,000	Raw Products Co.....	5,000	George A. Alden & Co.....	530,000
Henry Mann & Co.....	1,000	Rubber Trading Co.....	9,000	W. L. Gough Co.....	35,000
AFRICANS.		Henry A. Gould & Co.....	5,000	Poel & Arnold.....	100,000
JAN. 22.—By the <i>Brasilia</i> =Hamburg:		FEB. 15.—By the <i>St. Paul</i> =London:		GUTTA-PECHA.	
A. T. Morse & Co.....	10,000	Poel & Arnold.....	5,500	JAN. 25.—By the <i>Woglinde</i> =Singapore:	
JAN. 25.—By the <i>Lucania</i> =Liverpool:		Livesey & Co.....	13,500	Heabler & Co.....	33,500
George A. Alden & Co.....	68,000	FEB. 15.—By the <i>Patricia</i> =Hamburg:		Winter & Smillie.....	2,000
H. A. Gould & Co.....	8,000	A. T. Morse & Co.....	22,000	JAN. 26.—By the <i>Pennsylvania</i> =Hamburg:	
Livesey & Co.....	6,500	Rubber Trading Co.....	11,000	E. Oppenheim.....	10,000
JAN. 25.—By the <i>Baltic</i> =Liverpool:		Livesey & Co.....	2,500	FEB. 3.—By the <i>Wray Castle</i> =Singapore:	
General Rubber Co.....	68,000	George A. Alden & Co.....	2,000	Heabler & Co.....	20,000
Rubber Trading Co.....	5,500	FEB. 16.—By the <i>Victorius</i> =Lisbon:		George A. Alden & Co.....	5,000
Poel & Arnold.....	7,000	General Rubber Co.....	25,000	BALATA.	
JAN. 26.—By the <i>Mouiso</i> =Lisbon:		A. T. Morse & Co.....	5,000	FEB. 6.—By the <i>Grenada</i> =Trinidad:	
General Rubber Co.....	45,000	General Rubber Co.....	5,000	J. A. Pauli & Co.....	3,000
JAN. 26.—By the <i>Pennsylvania</i> =Hamburg:		Rubber Trading Co.....	5,000	Frame & Co.....	2,500
A. T. Morse & Co.....	22,500	FEB. 17.—By the <i>Georgic</i> =Liverpool:		Middleton & Co.....	1,000
W. L. Gough Co.....	33,500	General Rubber Co.....	75,000	CUSTOM HOUSE STATISTICS.	
Poel & Arnold.....	20,000	Poel & Arnold.....	33,500	PORT OF NEW YORK—JANUARY.	
George A. Alden & Co.....	20,000	Livesey & Co.....	2,500	Imports:	
Rubber Trading Co.....	3,500	Rubber Trading Co.....	5,000	India-rubber.....	6,067,658
JAN. 27.—By the <i>Pallanza</i> =Hamburg:		FEB. 18.—By the <i>Gothland</i> =Antwerp:		Balata.....	457,775
Rubber Trading Co.....	15,000	A. T. Morse & Co.....	22,500	Gutta-percha.....	9,873
W. L. Gough Co.....	5,000	EAST INDIAN.		Gutta-jelutong (Pontianak).....	1,212,842
JAN. 26.—By the <i>Kraonland</i> =Antwerp:		[*Denotes plantation rubber.]		Total.....	8,648,148
A. T. Morse & Co.....	11,500	JAN. 25.—By the <i>Woglinde</i> =Singapore:		Exports:	
JAN. 26.—By the <i>Augusta Victoria</i> =Hamburg:		Otto Isenstein & Co.....	10,000	India-rubber.....	13,070
Livesey & Co.....	15,000	George A. Alden & Co.....	15,000	Balata.....	313,690
General Rubber Co.....	15,000	Heabler & Co.....	9,000	Reclaimed rubber.....	7,163
Rubber Trading Co.....	11,000	JAN. 25.—By the <i>Minneapolis</i> =London:		Rubber scrap imported.....	1,816,508
George A. Alden & Co.....	11,500	Livesey & Co.....	*3,500		
Poel & Arnold.....	5,500	FEB. 1.—By the <i>St. Louis</i> =London:			
FEB. 1.—By the <i>Berici</i> =Liverpool:		A. T. Morse & Co.....	*15,000		
General Rubber Co.....	35,000				
A. T. Morse & Co.....	5,000				

## PARA EXPORTS OF INDIA-RUBBER, SECOND HALF OF 1908 (IN KILOGRAMS).

NEW YORK.					EUROPE.				
EXPORTERS.	Fine.	Medium.	Coarse.	Cauch.	TOTAL.	Fine.	Medium.	Coarse.	Cauch.
Schrader, Gruner & Co.....	322,700	68,755	423,163	34,169	848,787	431,098	55,783	85,143	68,996
Adelbert H. Alden.....	406,655	103,887	265,640	128,270	904,452	251,652	45,415	115,639	27,483
Scholz, Hartje & Co.....	207,272	49,222	254,777	6,095	517,366	499,259	24,681	47,060	9,878
Gordon & Co.....	311,038	39,137	499,767	660	850,602	60,690	10,730	5,280	33,944
E. Pinto Alves & Co.....	217,430	1,700	344,850	.....	563,980	207,750	.....	100,980	368,730
J. Marques.....	217,600	25,500	276,210	660	519,970	185,476	15,076	92,187	295,379
Pires, Teixeira & Co.....	104,550	.....	94,050	.....	198,600	129,200	.....	73,920	203,120
De Lagotellerie & Co.....	98,965	17,510	210,210	23,340	350,115	9,037	.....	1,428	1,029
R. O. Ahlers & Co.....	13,839	.....	1,210	.....	15,049	150,498	.....	20,263	60,375
R. Suarez & Co.....	9,930	1,105	1,406	558	13,059	143,410	71	29,490	46,395
Guilh. Aug. de Miranda Co.....	32,640	5,600	1,800	.....	40,040	55,007	7,840	2,550	102
Braga Sobr. & Co.....	.....	.....	.....	.....	1,600	.....	.....	780	1,624
Mello & Co.....	.....	.....	3,300	.....	3,300	.....	.....	.....	.....
Leite & Co.....	.....	.....	.....	.....	122	60	21	1,704	1,967
Singlehurst, Brocklehurst & Co.....	.....	.....	.....	.....	312	.....	.....	.....	312
Sundries.....	.....	.....	.....	.....	100	.....	12,734	6,750	19,584
Itacoatiara, direct.....	.....	.....	.....	.....	20,919	952	24,307	5,415	60,653
Manaos, direct.....	2,295,324	528,378	579,686	205,363	3,608,751	1,896,720	291,732	200,000	560,309
Iquitos, direct.....	2,982	.....	916	4,559	8,457	265,172	15,942	97,229	441,558
Total.....	4,240,925	840,854	2,956,985	403,764	8,442,528	4,287,022	468,282	909,071	1,268,262

## PARA EXPORTS OF INDIA-RUBBER, JANUARY, 1909 (IN KILOGRAMS).

NEW YORK.					EUROPE.				
EXPORTERS.	Fine.	Medium.	Coarse.	Cauch.	TOTAL.	Fine.	Medium.	Coarse.	Cauch.
Gruner & Co.....	71,662	18,599	122,657	2,816	215,734	153,799	15,678	53,396	15,096
Adelbert H. Alden.....	114,207	22,297	60,664	31,600	228,768	34,154	8,222	10,419	15,403
R. Suarez & Co.....	.....	.....	.....	.....	.....	213,974	1,891	14,107	62,023
Scholz, Hartje & Co.....	53,324	9,226	29,415	2,749	94,714	24,123	2,279	5,971	68,334
E. Pinto Alves & Co.....	31,620	.....	60,720	.....	92,340	50,830	.....	18,480	69,310
R. O. Ahlers & Co.....	17,541	.....	1,160	.....	18,701	49,489	.....	10,792	63,759
J. Marques.....	44,200	1,360	36,268	.....	81,828	23,630	3,400	22,515	799
Pires, Teixeira & Co.....	22,440	850	21,450	43,890	21,420	10,470	.....	19,470	40,890
Gordon & Co.....	5,440	850	36,960	990	44,240	21,412	4,932	7,437	36,592
Guilh. Aug. de Miranda Co.....	4,885	820	1,295	.....	7,009	17,756	1,544	4,949	24,249
Mello & Co.....	16,320	3,315	550	.....	20,191	.....	.....	7,682	10,309
De Lagotellerie & Co.....	.....	.....	6,600	.....	6,600	.....	.....	.....	6,600
Alves Braga & Co.....	.....	.....	5,522	.....	5,522	.....	.....	.....	5,522
Braga Sobrinho & Co.....	.....	.....	.....	.....	.....	.....	.....	3,300	3,300
Pinto Fernandes & Co.....	340	.....	330	.....	670	.....	.....	990	990
Itacoatiara, direct.....	.....	.....	.....	.....	.....	11,006	17	6,585	19,630
Manaos, direct.....	641,377	161,066	256,811	276,255	1,335,509	738,071	101,898	110,115	282,487
Iquitos, direct.....	13,642	511	4,420	4,217	22,790	162,339	14,540	69,143	260,081
Total, January.....	1,036,998	218,053	639,306	324,149	2,218,506	1,521,113	154,401	365,351	775,642



Vol. 39.

MARCH 1, 1909.

No. 6.

## TABLE OF CONTENTS

## Editorial:

Secretary Straus and Commerce.....	PAGE. 199
Rubber Over-production—and Caucho.....	199
Retaliatory Patent Bills.....	201
Minor Editorial.....	201

Enzymes and the Color of Rubber.....	201
--------------------------------------	-----

Expert Opinion on Plantation Rubber.....	202
------------------------------------------	-----

Gutta-Percha Planting in Java.....	203
[With 3 Illustrations and a Portrait of W. R. Tromp de Haas.]	

The British as Pioneers in Rubber.....	
----------------------------------------	--

The India-Rubber Trade in Great Britain.....	205
----------------------------------------------	-----

[International Testing Committee. Jelutong. The Unity Rubber Co., Limited. Mr. W. S. Atkinson. Tottenham Rubber Works. Iodized Rubber.]	Our Regular Correspondent 207
-----------------------------------------------------------------------------------------------------------------------------------------	-------------------------------

New Status of the Congo Rubber Country.....	209
[With a Portrait of the Author.]	James Gustavus Whiteley

The Obituary Record.....	210
[With a Portrait of Abner H. Angell.]	

Recent Patents Relating to Rubber.....	213
[United States. Great Britain. France.]	

American and European Factory Policy.....	211
-------------------------------------------	-----

What the Rubber Planters Are Doing.....	215
[With 2 Illustrations.]	

Some India-Rubber Interests in Europe.....	217
--------------------------------------------	-----

The Editor's Book Table.....	218
------------------------------	-----

New Goods in the Rubber Market.....	221
[With 7 Illustrations.]	

## Miscellaneous:

The Next Rubber Exhibition.....	202
Rubber in Hunting Clothing.....	206
R. M. Howison (With Portrait).....	206
Use of the Words "Wire" and "Cable".....	208
The "Cyclops" Pneumatic Tire (Illustration).....	208
To Promote Foreign Trade.....	212
India-Rubber Goods in Commerce.....	212
Neponset Splicing Compound.....	214
Rubber at the Kew Gardens.....	214
The New Hofellser Premises (Illustrated).....	220

News of the American Rubber Trade.....	221
----------------------------------------	-----

The News at Akron.....	Our Correspondent 219
The Trade at San Francisco.....	Our Correspondent 219

Review of the Crude Rubber Market.....	227
----------------------------------------	-----

## Rubber Scrap Prices.

LATE New York quotations—prices paid by consumers for carload lots, per pound—are for most grades lower than last month:

Old rubber boots and shoes—domestic.....	8¼@ 8¼
Old rubber boots and shoes—foreign.....	7¾@ 7¾
Pneumatic bicycle tires.....	5½@ 6
Automobile tires.....	5½@ 6
Solid rubber wagon and carriage tires.....	7 @ 7½
White trimmed rubber.....	9½@ 10
Heavy black rubber.....	5 @ 5¼
Air brake hose.....	3½@ 3¾
Garden hose.....	2 @ 2½
Fire and large hose.....	2¾@ 3
Matting.....	1¼@ 1½

## United States Rubber Co.'s Shares.

TRANSACTIONS on the New York Stock Exchange for four weeks, ending February 20:

## COMMON STOCK.

Week January 30	Sales 1,600 shares	High 33	Low 31
Week February 6	Sales 700 shares	High 32½	Low 31½
Week February 13	Sales 450 shares	High 32	Low 31½
Week February 20	Sales 1,450 shares	High 31½	Low 30½
For the year—High, 34½, Jan. 2; Low, 30½, Feb. 19.			
Last year—High, 37½; Low, 17½.			

## FIRST PREFERRED STOCK.

Week January 30	Sales 11,008 shares	High 104	Low 98
Week February 6	Sales 2,035 shares	High 103½	Low 101
Week February 13	Sales 725 shares	High 102½	Low 101½
Week February 20	Sales 1,770 shares	High 104	Low 103
For the year—High, 107, Jan. 12; Low, 98, Jan. 29.			
Last year—High, 108; Low, 76.			

## SECOND PREFERRED STOCK.

Week January 30	Sales 200 shares	High 70	Low 70
Week February 6	Sales 100 shares	High 69¾	Low 69¾
Week February 13	Sales 200 shares	High 69¾	Low 69¾
Week February 20	Sales 150 shares	High 68½	Low 68½
For the year—High, 73¾, Jan. 5; Low, 68½, Feb. 18.			
Last year—High, 58¾; Low, 25¾.			

## Liverpool.

WILLIAM WRIGHT & Co., report [February 1]:

*Fine Pará.*—Influenced by heavy Pará receipts, prices have declined somewhat, but the undertone is very firm, and considerably more business would have taken place had sellers been willing to operate. The closing of several American shoe factories next month is expected to be fully balanced by the state of the motor industry. Pará receipts, though large, are still 800 tons short of the estimate; and it is still persistently rumored that present heavy receipts will be at the expense of the later months of the crop. Under all circumstances we repeat our advice of last month that a basis of 5s. for hard fine is a safe one for manufacturers to operate from. Closing value: Upriver spot, 5s. 1d. [= \$1.23-7]; Islands, 4s. 10½d. [= \$1.18.6].

## African Rubbers.

## NEW YORK STOCKS (IN TONS).

January 1, 1908.....	156	August 1, 1908.....	145
February 1.....	224	September 1.....	133
March 1.....	123	October 1.....	134
April 1.....	201	November 1.....	134
May 1.....	165	December 1.....	179
June 1.....	446	January 1, 1909.....	156
July 1.....	334	February 1.....	157

## A PERSONAL LOSS TO BLUEFIELDS.

THE death occurred recently, at his home in Allston, Massachusetts, of George D. Emery, in his seventy-fourth year. He had resigned a few months before from the presidency of George D. Emery Co. (Chelsea, Mass.), whose business is the export of mahogany and cedar from Bluefields, Nicaragua, and of which he had been in charge for a quarter century. Mr. Emery was mentioned in THE INDIA RUBBER WORLD several years ago in connection with forming a plantation of rubber in Colombia, which was destroyed at an early age by an unusual overflow of the river on which it was located. The death of Mr. Emery was generally deplored at Bluefields, where formal action was taken expressing the regret of the community. This was joined in by Mr. Jules A. Belanger, of Belanger's, Incorporated, who are rubber planters, and other leading citizens, including Frederick Beer, president of the New Orleans and Central American Trading Co., Limited. Mr. Beer, a German by birth, who had been at Bluefields since 1884, trading in rubber and gold and helping to found the business of which he was latterly the head, has died since. By the way, Mr. Belanger, in whose rubber planting business some New Yorkers are interested, was early in the year seriously ill, but later reports point to his full recovery.

**MILK ON RUBBER BOOTS.**—A suggestion that may be new to some readers appears in the latest catalogue of the Boston Rubber Shoe Co.: "Milk left to dry on rubber boots will decompose the rubber."



